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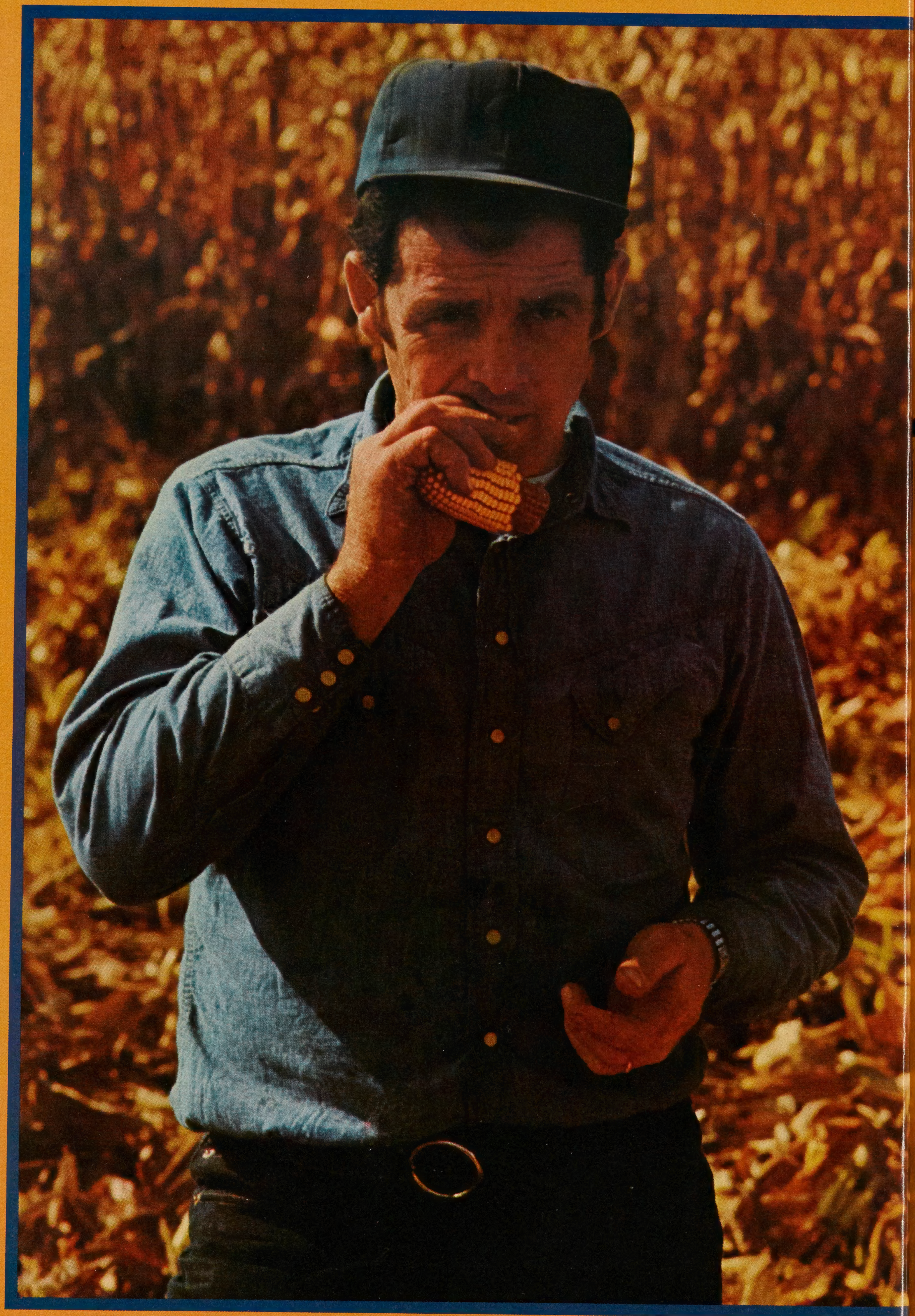
Northeast Farmer

JANUARY 1973

American Agriculturist

and the

RURAL NEW YORKER



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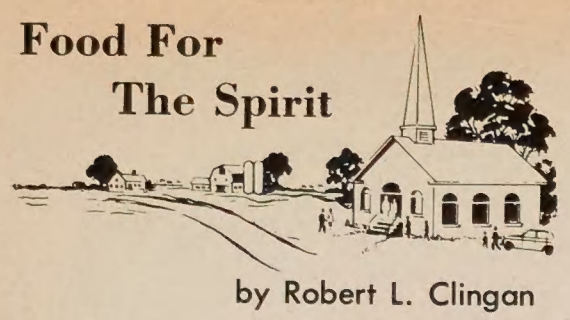
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Food For The Spirit



by Robert L. Clingan

Jesus said, "Judge not, that you be not judged." What He was really talking about was censorious criticism. He declared that men were not to judge because the man who judges others is also judged by others. The standards used against another are the standards by which the critic will be criticized. "With what measure you mete it out, it will be meted to you again."

This is a negative application of the Golden Rule, "Do unto others as you would have them do unto you." This teaching says, "Avoid judgment, or do not judge, for you will be judged." In other words, avoid doing something to someone else that you would not like someone else doing to you.

Jesus took this one step further. He says that so often the person engaged in correcting another, and professing a desire to help someone else overcome his weaknesses, has far greater weaknesses of his own.

Illustration

Christ dramatizes this teaching with one of his so-called "grotesque hyperboles," or figures of speech. The words he uses are "mote," which means a speck, and "beam," which is a kind of timber used in building a house. So he says, "Why try to remove the mote that is in your brother's eye, when you have a beam in your own?" First remove the timber from your own eye, and you will be better able to see to remove the speck from your brother's eye.

Thus, Jesus is calling His disciples to rigorous self-examination and self-improvement before they try to remove the weakness of another, or subject him to censorious criticism. Not to do that, says Jesus, is to be a hypocrite.

The discipline of the human tongue, and the self-examination of him who would correct another, are called for in this needful teaching of Jesus Christ. He who heeds Jesus' words will avoid betraying himself.



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Dates to Remember

Jan. 4 - Annual Meeting Western New York Apple Growers, Sheraton Inn (near airport, 1100 Brook Ave.), Rochester, NY

Jan. 8-12 - Pennsylvania Farm Show, Farm Show Building, Harrisburg, PA

Jan. 10 - 141st Annual Meeting NYS Agricultural Society, Albany Hyatt House, Albany, NY

Jan. 10-11 - Annual Meeting and Winter Conference Empire State Soil Fertility Association, Sheraton Motor Inn, Syracuse, NY

Jan. 14 - National Sale International Maine-Anjou Association, Denver, CO

Jan. 15-19 - Beef Cattlemen's Short Course, Morrison Hall, Cornell University, Ithaca, NY

Jan. 16-18 - 32nd Annual Maine Agricultural Trades Show, new Civic Center, Augusta, ME

Jan. 23-25 - Vermont Farm Show, Barre Auditorium, Barre, VT

Jan. 24-25 - NYS Horticultural Society Meeting Western New York Area, War Memorial, Rochester, NY

Jan. 30-31 - NYS Horticultural Society Meeting Hudson Valley Area, Granite 2 Resort Hotel, Kerhonkson, NY

Feb. 6-8 - Annual Meeting Weed Science Society of America, Regency Hyatt House, Atlanta, GA

Feb. 6-8 - National Dairy Housing Conference, Kellogg Center for Continuing Education, Michigan State University, East Lansing, MI

Feb. 12-15 - International Snowmobile Congress, Saulte Sainte Marie, MI, and Saulte Sainte Marie, Ontario, Canada

Feb. 14-15 - Massachusetts Dairy Farmers Seminar, Highpoint Motor Inn, Chicopee, MA (Rt. 33, Exit 5 of MA Turnpike)

Feb. 17-24 - National FFA Week

Feb. 20-21 - Annual NYS Processing Vegetable Conference, Sheraton Motor Inn, Canandaigua, NY

Mar. 6-8 - Northeast Aerial Applicators Conference, Holiday Inn, Ithaca, NY

Mar. 22 - Agricultural Leaders Forum, Cornell University, Ithaca, NY

Mar. 26-28 - Cornell University Waste Management Conference and Fourth National Symposium on Food Processing Wastes, Syracuse, NY



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OUR COVER

Our Northeast is in the iron grip of winter, but these ducks on the Robert Weller farm near Cato, New York find a good place to swim even among the ice. Photo: Roy Thompson

APA

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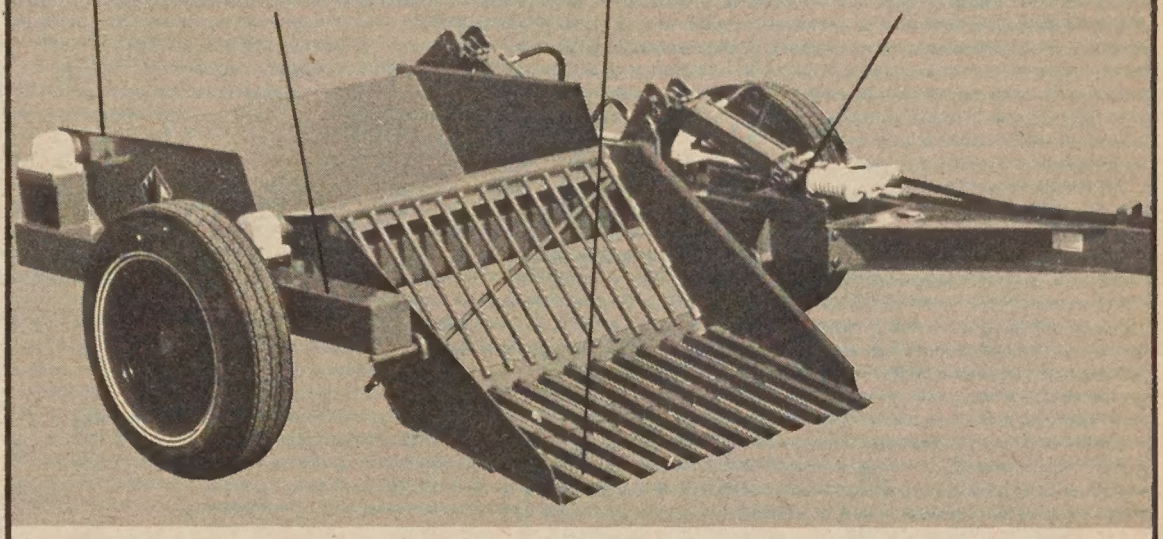
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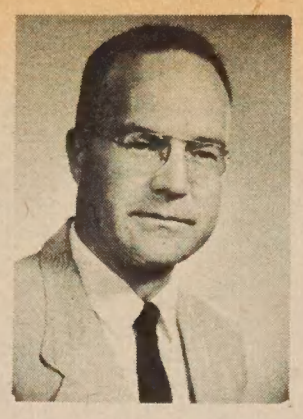
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EDITORIALS

by GORDON CONKLIN



THE GREAT GRAIN FOBBERY

George McGovern is no longer trying to harvest votes in the wheatbin by fobbing off lurid stories of USDA corruption in connection with the sale of wheat to Russia. It may be possible, now that the political smoke has cleared, to get a little objective light on the subject.

Almost totally ignored by the press and television networks has been a heavily-documented report by Cargill, Inc. about its experience in selling grain to the Russians. Speculation about the sensational charges has been more appealing than any account about what actually took place.

Cargill, for the first time in its 107-year history, revealed complete details of its purchases and sales . . . involving two million tons of Russia-bound wheat. It also presented confirmation of all its figures from the independent accounting firm of Peat, Marwick, and Mitchell.

Briefly, here's what happened:

—As of September 30, 1972, Cargill had sold the Russians 73,487,400 bushels of wheat . . . and had suffered a net **loss** of .9 cents per bushel on the deal.

—Cargill had no inside information on the dimension of Soviet need for wheat. If it had, it would have avoided the proven necessity to go into the market **after** wheat prices had risen dramatically to buy grain to meet its commitments to Russian grain buyers. That now-famous telephone call from the USDA to grain exporters told them that all future export sales would have to be made at the exporter's risk.

—Contrary to charges, Cargill did **not** book most of its export subsidy at late, high levels. Neither did it speculate in wheat futures in anticipation of Russian sales . . . as evidenced by records submitted regularly to the Commodity Exchange Authority.

It can be fun to spread the gossip that our neighbor is beating his wife . . . but only negative results are achieved if the rumors are false. So it is with the Russian grain deal . . . the political hunting season provided great sport in shooting at responsible political leaders . . . but we will reap the negative whirlwind of divisiveness and missed export opportunity if the truth never replaces the rumors.

The Russian grain sale boosted U.S. farm income by a billion dollars through its upward pressure on the prices of all major grains. Taxpayers are still reaping a $200 million savings in reduced storage charges and higher values of government-owned grains. The U.S. deficit in balance of payments . . . seriously increasing . . . got a billion-dollar shot in the arm on the plus side as a result of grain sales to the Russians.

And, as John Scott, master of the National Grange, put it, "As long as the domestic price is higher than the world price, export subsidies must be paid if we are to supply our share of the world market's demand for grains." The export subsidy program, far from generating gigantic "windfall profits" for grain exporters, really accrues to the benefit of wheat **producers.**

Judging by presidential-election results in the rural areas of major wheat-producing states, not many **farmers** bought Senator McGovern's accusations of misdeeds connected with the Russian wheat sale. But lingering doubts created by those charges can become a roadblock to future trade, and a wet blanket on recently-improving international relations.

The truth is, folks, that when all the pluses and minuses of the Soviet grain deal are compared, there is an overwhelming balance on the plus side of the ledger. Let's get at the job of selling more farm products overseas, and not let the acrimony created by politics deter us from a desirable long-range objective.

GOOD READING

A 28-page booklet entitled, "One Nation Under God" traces the important part that religion has played, and continues to play, in the life of American citizens and of the country itself. It is a non-sectarian story of a religious heritage of our nation.

Single copies . . . or multiple copies in reasonable number for school use . . . are available without charge from the Foundation for Christian Living, Pawling, New York 12564.

THE MOST IMPORTANT CROP

January is the traditional time to make New Year's resolutions . . . and then spend the rest of the year making excuses for not living up to them!

I'm proposing a resolution this year that seems to me awfully important . . . a resolve primarily suggested to parents or grandparents of children under 18 years of age, but indirectly involving all adults. Repeat after me: "I resolve to try spending more time with my family in 1973."

A number of folks whose profession is studying people report that these United States are obviously in trouble as far as our young people are concerned. They point to the breakdown of family communications and togetherness as the root cause of youthful alienation . . . and the associated vandalism, crime, drug abuse, and other tragic problems.

As Professor Urie Bronfenbrenner of Cornell University puts it, "In today's world, parents find themselves at the mercy of a society which imposes pressures and priorities that allow neither time nor place for meaningful activities and relations between children and adults, which downgrade the role of parents and the functions of parenthood, and which prevent the parent from doing the things he wants to do as a guide, friend, and companion to his children."

He goes on to the specifics that prevent children from developing mutually helpful relationships with their parents . . . the demands of a job, or often two jobs . . . trips and moves required by employers . . . constantly-increasing time spent commuting from home to job . . . parties and other social activities . . . and even community responsibilities whose demand on time appear to grow in geometric proportions. And, of course, the "tube" which mesmerizes people into non-communicating statues.

Farmers have a tremendous advantage going for them; theirs is one of the very few occupations where children have an opportunity to mature constructively by working shoulder to shoulder with their parents. This privilege has disappeared from most other areas of American life, and sociologists mourn its passing . . . pointing to growing frustration among young people as one of the bitter fruits of such "progress."

But even farmers often feel caught in the squirrel cage of trying to get ahead . . . with so much to do that there seems to be no time to go snowmobiling with the kids . . . or go with them to a movie .

You may have contributed handsomely to some youth-oriented charitable cause . . . and maybe spent many hours in helping with community projects . . . and therefore conclude that you have struck your blow on behalf of the younger generation. But it's my guess that the young people in our families would appreciate most some more of our **time** to do things together.

No better investment opportunity will come our way during 1973 than the finest crop ever raised in rural America . . . our children. It's an investment that will outlive us for generations . . . a form of immortality understood by people across the entire spectrum of religious attitudes.

LEGISLATIVE BATTLES

What are the legislative issues that will be especially important to farmers in the Northeast in 1973? Those receiving special attention at the last annual meeting of the New York State Farm Bureau make a good list for starters.

Agricultural labor relations is one . . . the contention by farmers is that farm employees should have a right to organize and bargain collectively, but that they should also have the right of secret ballot to choose their union. Furthermore, the perishability of most farm produce requires some legal protection for a farmer to prevent devastating strikes at harvest time. Establishment of ground rules for farm worker unionism is a crucial issue for farmers this year . . . at state and national levels.

Agricultural marketing and bargaining is another issue important to all farmers everywhere. The NYS Farm Bureau is on record as favoring the National Agricultural Marketing and Bargaining Act . . . and supports **compulsory arbitration** if bargaining fails to produce an acceptable contract. The experience of processing-fruit growers in 1972 in Western New York emphasizes again the importance of such legislation (see page 24).

Laws concerning agricultural runoff control are . . . or will be . . . of concern to all northeastern farmers. The Iowa legislature has passed the first such law . . . making soil conservation mandatory on landowners. The "Tills Bill" in New York, introduced in the 1972 legislative session, calls for similar regulation . . . and will probably stir a battle again in the capitol arena at Albany this year.

No-fault insurance will be another controversial topic among legislators. Massachusetts lawmakers have already enacted such a law . . . but most lawyers (the professional group dominating most legislatures) are bitterly opposed. The New York Farm Bureau calls for improvement of auto-insurance laws, but stops short of endorsing the no-fault principle.

A spirited debate developed among delegates regarding line fence laws . . . with some younger persons labeling as obsolete the present law requiring a landowner without livestock to build part of a line fence. The overwhelming majority, however, supported the present law . . . even though it has been declared unconstitutional by the State's Appellate Division.

The problems to which these resolutions are addressed are common to farming over the Northeast . . . and point to some of the highest priority legislative concerns for 1973.

THE PASSING PARADE

The president of a farm cooperative made many speeches in the course of a year's time but a particularly important one was coming up. So he asked his most honest critic . . . his wife . . . to look over a copy of his proposed remarks.

After she had read it carefully, he asked anxiously, "Do you think I should put more fire into it?"

"No," she replied, "you should put more of it into the fire!"

American Agriculturist, January, 197

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FRUIT



Synthetic Wire – Fruit specialist Richard Norton, 249 Highland Avenue, Rochester, N.Y. 14620, reports that a new synthetic wire works well for trellising grapes or apples. He writes, "I have several miles of the material up on grapes and apples. The labor of putting it up on poles is considerably less than wire because it is so light and easy to handle.

"It has 70 yards per pound. The cost per pound delivered to New York was $1.40. This makes it very competitive. One big advantage is that once properly established, it never needs re-tightening because it will not expand in heat or contract in cold.

"Unless I miss my guess, there will be miles of it used for grapes in this country in the near future."

Apple Dip – Treating apples with calcium after harvest helps retain "fresh" quality in stored fruit, and extends its shelf life after removal from storage. So reports horticultural scientist Donald Dewey of Michigan State University, where laboratory and commercial field tests have shown that a post-harvest "dip and drench" treatment with calcium chloride does an excellent job of preventing the internal breakdown that often plagues apples after they come out of storage.

Dewey and his colleagues are currently developing recommendations for commercial use of calcium chloride treatments for apples.

New Fruit – After years of research, eight new varieties of fruit have been officially named at Cornell University's Agricultural Experiment Station in Geneva, New York. They are:

Jonomac – early-fall dessert apple; McIntosh type, but eating quality considered superior to that of McIntosh.

Seneca plum – large, attractive, fresh-fruit variety.

Brighton peach – yellow flesh, medium firm, sweet and juicy. Tolerant to perennial canker.

Eden peach – white flesh; sweet, rich flavor; very productive, cans well.

Holiday strawberry – large, uniform, very firm mid-season variety; disease and rot resistant.

Cayuga White – high-quality wine grape.

Lakemont and **Suffolk Red** – seedless dessert grapes.

Before naming, all these fruit varieties have been listed in a numbered series in the catalog of the New York State Fruit Testing Cooperative Association.

Hort Show – The New York State Horticultural Society will hold its annual trade show and meeting on January 24 and 25 at Rochester, New York . . . its eastern meeting on January 30 and 31 at Kerhonkson.

Rochester program topics include (on the 24th): apple cost accounts, apple prices, credit situation, and comments by New York's Commissioner of Agriculture, Frank Walkley.

On the 25th, speakers will discuss the federal cherry marketing order, the apple price outlook, how to sell apples, new and proposed apple products, farm labor, and the College of Agriculture and Life Sciences.

More Grapes – A substantial surge in grape acreage has been taking place in New York State in recent years, stimulated by the soaring consumption of wines.

For example, Niagara County had 1,811 acres of grapes on 168 farms in 1970 . . . but estimates by the industry, and by Extension specialists, show an additional 850 acres planted during the last two years, and more planned.

It takes about three years after initial field planting of one- or two-year-old vines, and training on trellis wires, to get the first grape production.

Some growers allow clusters of grapes to mature during the second year, but experienced vineyardists such as David Nichols of Ridge Road, Lewiston, New York, comments, "We'd rather remove any of the second year production from the vines at the blossom-set stage to let the vines grow stronger and hardier. Then they could carry the load of third or fourth-year production and not be weakened so that extreme winter weather would freeze them back and reduce production."

Another Niagara County vineyardist, Tom Tower of Youngstown, says, "Growers of hybrid grapes run into trouble on some of the early-producing Baco Noir or other early-type grapes, so production is usually not as high as with Concord or other juice grapes that come in later. This year, blackbirds took about a third of our crop. Wineries that want the European hybrid varieties will pay us more for the wine-type than the juice-type grapes. But we're not discouraged, for if weather conditions are good and we get an average crop each year, we can make a profit."

Adds county agent Richard Robinson, "As long as good land is available and producers have markets, grape acreage will continue to grow. We caution inexperienced people against planting large grape acreages at this time, and tell them to get their feet wet a little at a time. **They should know where they can sell the raw products before they plant.**"

American Agriculturist, January, 1973

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Hoffman FARM SEEDS

Need a speaker?

A speaker's bureau has been organized by the New York State Department of Agriculture and Markets, reports Commissioner Frank Walkley. The new bureau gives educators, businessmen and organizations the opportunity to contact one office and obtain someone to address their group.

Farmers in the Empire State will augment Department personnel as speakers. Topics could cover such subjects as the use of pesticides, dog licensing, meat and food inspection techniques, how to get what you want in a food store . . . and almost anything in-between that falls under the Department's jurisdiction.

Requests will be matched to the person most knowledgeable on the desired subject. At most, the charge will be to cover the speaker's expenses. Full information is available through Louis B. van Dyck, Jr., Director of Public Relations, Department of Agriculture and Markets, Albany, New York 12226.

FFA alumni

Edwin Hadlock of Hammond, New York, has been elected to represent the North Atlantic Region on the Alumni Council of the newly-formed National FFA Alumni Association.

The new organization, formed to provide a tie for former FFA members and to promote a greater knowledge of the agricultural industry, held its first annual meeting at the National FFA Convention in Kansas City. When the presentation of state charters was completed, forty states had chartered a State FFA Alumni Association.

The election of the Alumni Council, or governing body of the organization, was by mail ballot prior to the meeting.

For more information about the purpose and activities of the new group, write to: FFA Alumni Association, P. O. Box 15058, Alexandria, Virginia 22309.

GRANGE HEADQUARTERS

The New York State Grange's new headquarters in Cortland is slated for completion by October 1, 1973. In rural contemporary style featuring a brick and redwood exterior, the 18,300 square foot, three-level building will centralize the organization's activities, now scattered in many locations throughout the State, and will also have a rental area.

An auditorium with capacity for 400 persons is included in the plans. The dual-purpose room, which will have stage and kitchen facilities, is convertible into smaller meeting areas. A parking lot will accommodate 83 cars.

The new headquarters is an important milestone in the 100-year history of Grange in the Empire State, and the culmination of many years of work by hundreds of members. It is expected that the organization's 101st annual session will be held in Cortland next October, soon after the building is completed.

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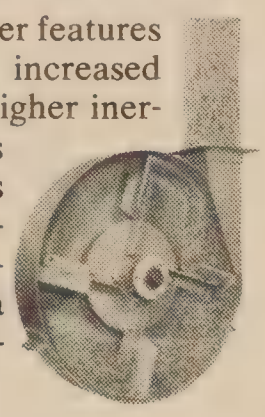
Fast feeding and fewer trips up the silo are two important reasons why more and more farmers are saving time and labor with the Jamesway Volumatic II. When you add the fact that the Volumatic II is *both* distributor and unloader, you take advantage of a unit that was designed and built to work for you all year 'round. Converts to a distributor in minutes. And being a complete silage system, the Volumatic II is the lowest cost combination on the market.

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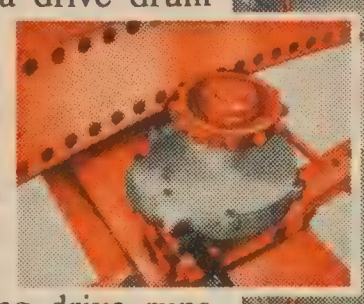
See cutaway drawing. Three separate cables keep the unit level for even cutting under all conditions (frozen or unfrozen) — it cannot tip or tilt. Compare this exclusive feature with single-cable unloaders where you must go up the silo to make time-consuming weight adjustments to keep the unloaders cutting level.

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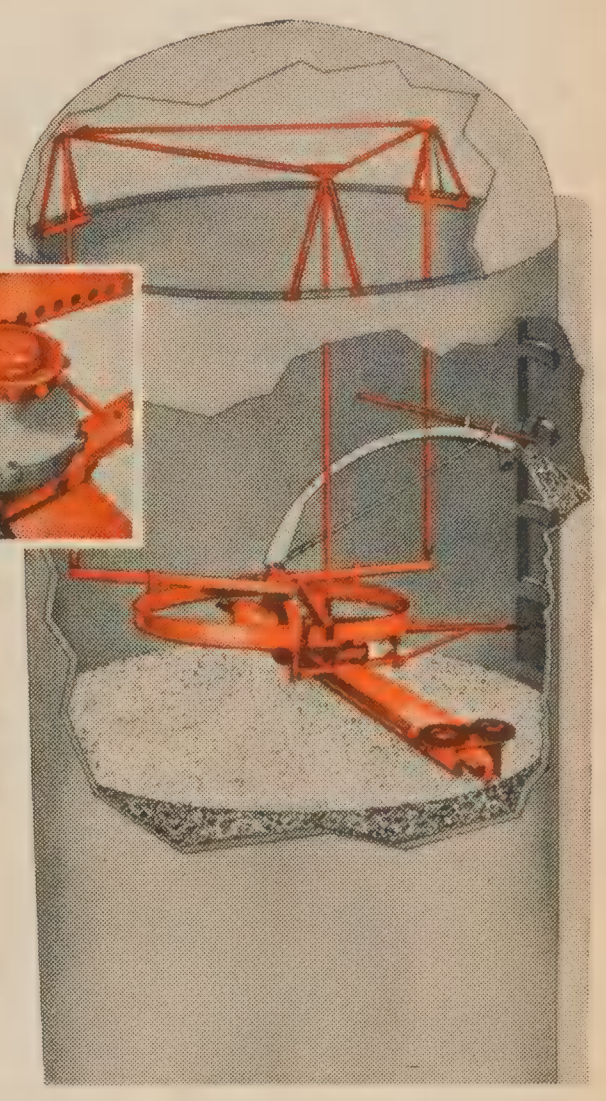
Power ring drive has no drive drum to manhandle



Most other unloaders are driven around the silo by a drive drum that turns on the silage and depends on it for traction. This can result in surface spoilage and more climbing up that chute to manhandle the drum. Power ring drive runs on a track up out of silage (it does not use silage surface for traction). This means fewer trips up the silo and less surface spoilage. And it means you can even unload shelled corn. Heavy-duty drive ring and rugged sprocket teeth (slip-clutch protected) assure positive power and more torque.

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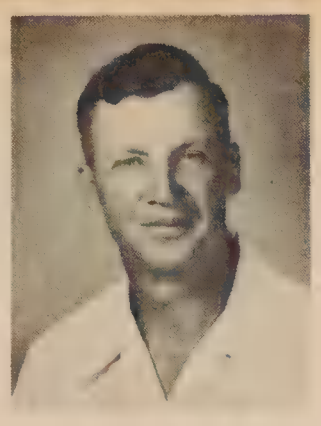
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Gayway Farm Notes

by HAROLD HAWLEY

PRODUCER TO CONSUMER

Over the years, as farmers have moved toward specialization in their enterprises, they have changed from producer to consumer for some of them. Dropping wheat or oats from the rotation didn't do anything to the diet or the source of food at the house, but when the decision was made to no longer raise potatoes, the farm family immediately had to seek another source.

Orchard

The farm orchard disappeared over a much longer period. As the trees got older, big branches would split off in bad storms. The prune trees developed some kind of ailment . . . big ugly-looking bunches . . . and soon died. Then a real cold snap one winter finished off the peach trees.

Grapes we still have, and a few nut trees, but mostly we go into the marketplace for our fruit. Whenever possible, that means a pleasant ride to buy from friends with an orchard. That tree-ripened fruit, rushed home and kept cool, sure beats much of what we buy at the store.

We got out of the home-raised-pork business in two easy steps. A good many years ago, we had three hogs . . . one each for the boys and one for us.

Sunday Job

One Sunday along in the fall, when the pigs were getting pretty good-sized, they got out of the pen. We found them in the yard when we came home from church. Without changing clothes, we opened the gate to their pen. Two went in beautifully, but the third one would have no part of that. Back and forth we went, right by that gate time after time. Finally I grabbed a hay fork to turn him. I held it pointed at his face so he would turn. He never stopped, but sort of jumped over the tines and neatly bayoneted himself through a lung.

We changed clothes, strung him up and proceeded to try to skin him. Now skinning a pig is a different ball game than skinning a cow. There is no way to just separate the hide and the hog. We stayed as close to the hide as we could, but still got quite a lot of fat with it and that hog's carcass sure looked rough all hacked up.

A couple of months later we dressed the other two . . . with the aid of hot water to loosen up the hair. Those were our last hogs . . . more I don't need. Again, we ended up buying our hams and pork chops.

Someplace along about that time we quit raising winter broilers. That had been a lot of work, but pretty good profit until the competition from the Southeast started to ship in dressed birds for about what we had to get for live ones if we were to make any money.

A year or two later we sold the laying flock. Through luck, not good judgment, we got rid of them just before fowl and egg prices collapsed. Again, we were in the market for eggs and poultry.

Even in the garden, we began to cut down on the number of vegetables, finally getting it down to tomatoes in the garden . . . and sweet corn planted with the corn planter along the edge of the corn field nearest the house. Berries and some garden produce can be bought from friends and neighbors, but for many items, we are just like our urban friends as far as buying vegetables is concerned.

Sold Cows

The latest change came when we sold the cows this past fall. Instead of selling milk by the hundredweight, we are buying it back by the gallon. We were surprised to find that every now and again the milk didn't taste farm-fresh.

The result has been a sharp decline in consumption at our house. We believe in promotion and are confident it can increase sales. However, anytime a customer gets a carton of milk which isn't top quality, the advertising has to be pretty persuasive to hold or increase consumption.

Quality is the job of everyone from the farmer right through to the housewife. It occurs to me that in some communities there must be a place for a franchised dairy retail store.

Such a store would specialize in dairy products. Its personnel would be properly trained in the art of preserving quality. They could do a first-rate job of displaying and merchandising the whole gamut of delicious dairy foods. My guess is they would help milk consumption.

POLICY-MAKERS

It's a most interesting thing to observe a delegate body at a farm organization convention as they make policy. They are willing to tackle such knotty ones as foreign trade, federal farm programs and the competition in agriculture from conglomerate capital. The intricacies of spelling out workable farm labor guidelines do not stop them. In most cases, they come up with pretty sound answers, too.

The places where they really get into prolonged discussions are not these big national issues, but on the issues that deal with them in their own home situations. Proposed modification of line fence laws will bring a host of opinions pro and con. It's more difficult to be fully objective

on an issue that involves **your own** farm and **your own** neighbors.

Real estate taxes are something about which everyone has an opinion. Education and its costs . . . and shortcomings . . . are of immediate concern to these tax-paying parents. Crime and law enforcement interest them and they have strong opinions.

It's really not surprising that a proposal to change the dog laws would bring forth a lot of discussion. First off, most farm people feel that if there is a dog problem in the cities, let them handle it there, without involving all the rest of the state. If there is an over-abundance of city dogs, and if they need leash laws, let them do what they have to do. Such action should be by local option.

Tattoo

The proposed New York State dog law would require that all dogs be tattooed. This would, hopefully, make identification possible so that the owner could be made responsible. It seemed that a tattoo should be simple . . . just as it is with the tattooing of calves when they are vaccinated. Not so. The word is that the best place to do the job is in the hind leg . . . at about $15 per dog.

The cost of this, plus the proposed fee of $25 for each breeder, really shook the delegates at the annual meeting of the New York State Farm Bureau, as it had shaken others who testified at some hearings held across the State. A breeder was anyone who owned one or more purebred dogs. A lot of us have kept registered dogs over the years with no thought of becoming a dog breeder . . . in fact, hoped to avoid that. It also seemed a little foolish to call a man a dog breeder if he had a purebred dog that had been altered.

Discussion

At any rate, it's a lead-pipe cinch we will have better laws in this country as long as the people have the opportunity to discuss the various proposals and vote on the issues. Their decisions will be a guide to the legislators.

Possibly one of the best assurances any society has that its government shall be of the people, by the people and for the people lies in the privilege of discussing issues, making policy and then in trying to get that policy reflected into law.

To be really successful, we need a lot more groups involved in such exercises. Each such group will have its own selfish interests at heart, but if members are responsible citizens they will not be asking for or promoting something that is not in the best interest of the rest of society.

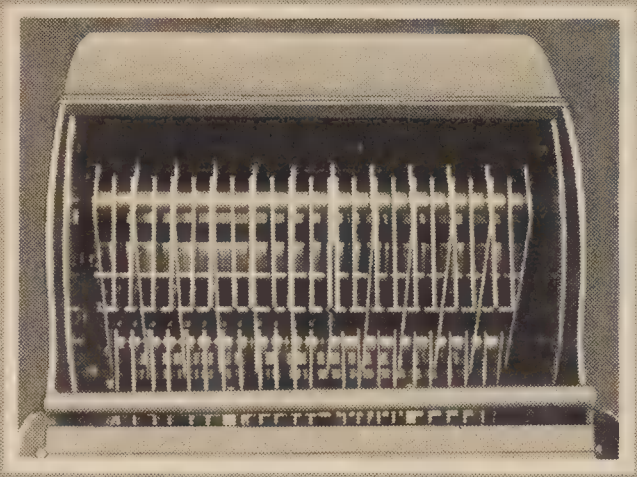
I submit this is not such a naive concept as one might expect. The successful organizations in an operation of this kind will be those that have earned the respect of other groups and of the legislators. Cooperation among and between groups with somewhat similar goals may then be expected, greatly increasing the likelihood of success.

To whatever extent we intelligently participate in these policy-making activities, we enhance the chance of getting the kind of government we want. It's one of our most precious heritages of freedom.

American Agriculturist, January, 1973

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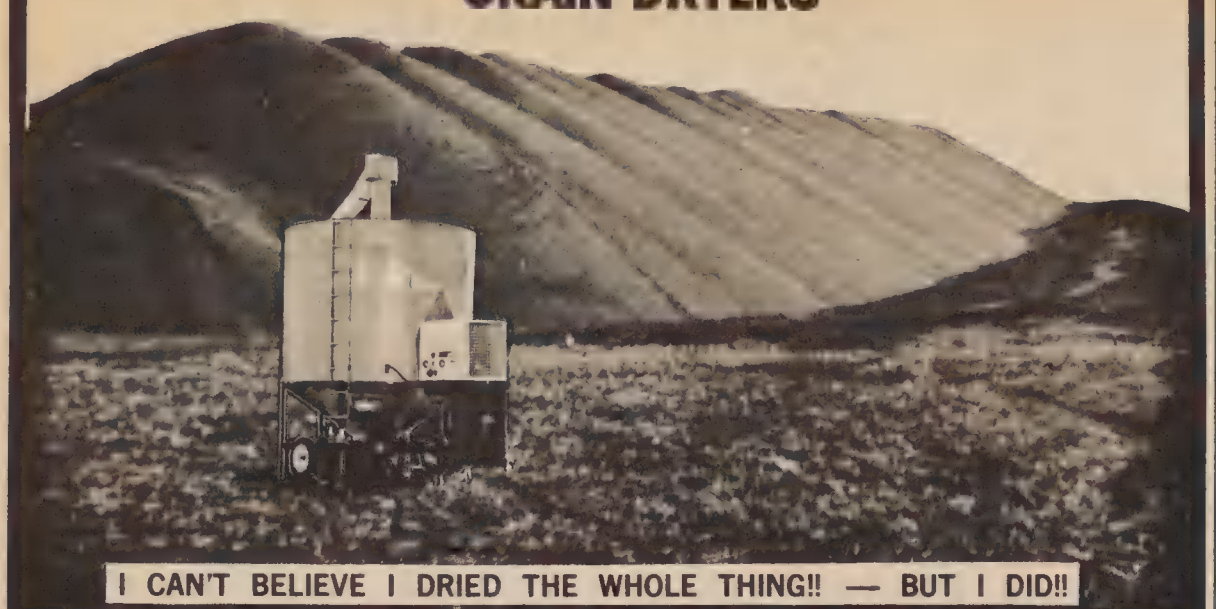
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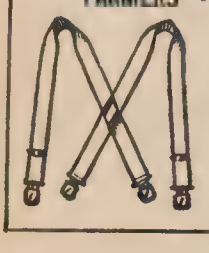
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NATIONAL 4-H WINNERS

Young 4-H members representing nine northeastern states participated in the recent 4-H Club Congress in Chicago. National award winners selected from those attending are pictured here. Also included are two 4-H alumni Gold Key award winners: Phillip Alampi, New Jersey's secretary of agriculture, and Henry Gruber, an official of Arbogast & Bastian, Inc., Allentown, Pennsylvania.

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The Seabrook merger

by Amos Kirby
New Jersey Editor

SEABROOK Feeds, the huge processing operation near Bridgeton, has hit the scene twice in a matter of weeks with

1. The announcement that the largest asparagus processor in the Garden State would not process this crop in 1973.

2. The offer by a South Carolina textile firm (Spring Mills) to pay $34.5 million for Seabrook Feeds. Spring Mills is apparently trying to diversify its operation.

These two announcements have caused widespread concern among the hundreds of growers who have in the past looked upon the Seabrook operation as a market for many crops.

I have talked with officials in the Seabrook management, and left with these impressions:

The end of asparagus processing is due to the low yields harvested in 1972. The spread of a root disease all through South Jersey has killed a substantion portion of the crowns.

Looking ahead into 1973, even with Seabrook out of the picture, there will be markets for all the asparagus grown, however. Officials at Seabrook, even with talk about the merger still unsettled, are going ahead with 1973 planting plans on contracts as if nothing is being changed. In fact, Seabrook Feeds will be operating as usual, even if no merger is approved.

I got the impression that while asparagus is out for 1973, there will be an increase in some of their other lines.

With or without a merger, Seabrook Feeds (according to its financial statement) is in a much better financial position than it has been for a number of years. It is a much larger operation than its South Jersey plant . . . with branches in the South, Northwest and California. This is not the first time others have been surveying this company with the idea of being part of a larger concern.

A NEW VENTURE

A new venture in marketing has been started by Dr. George Webster, manager of the New Jersey

(Continued on page 15)

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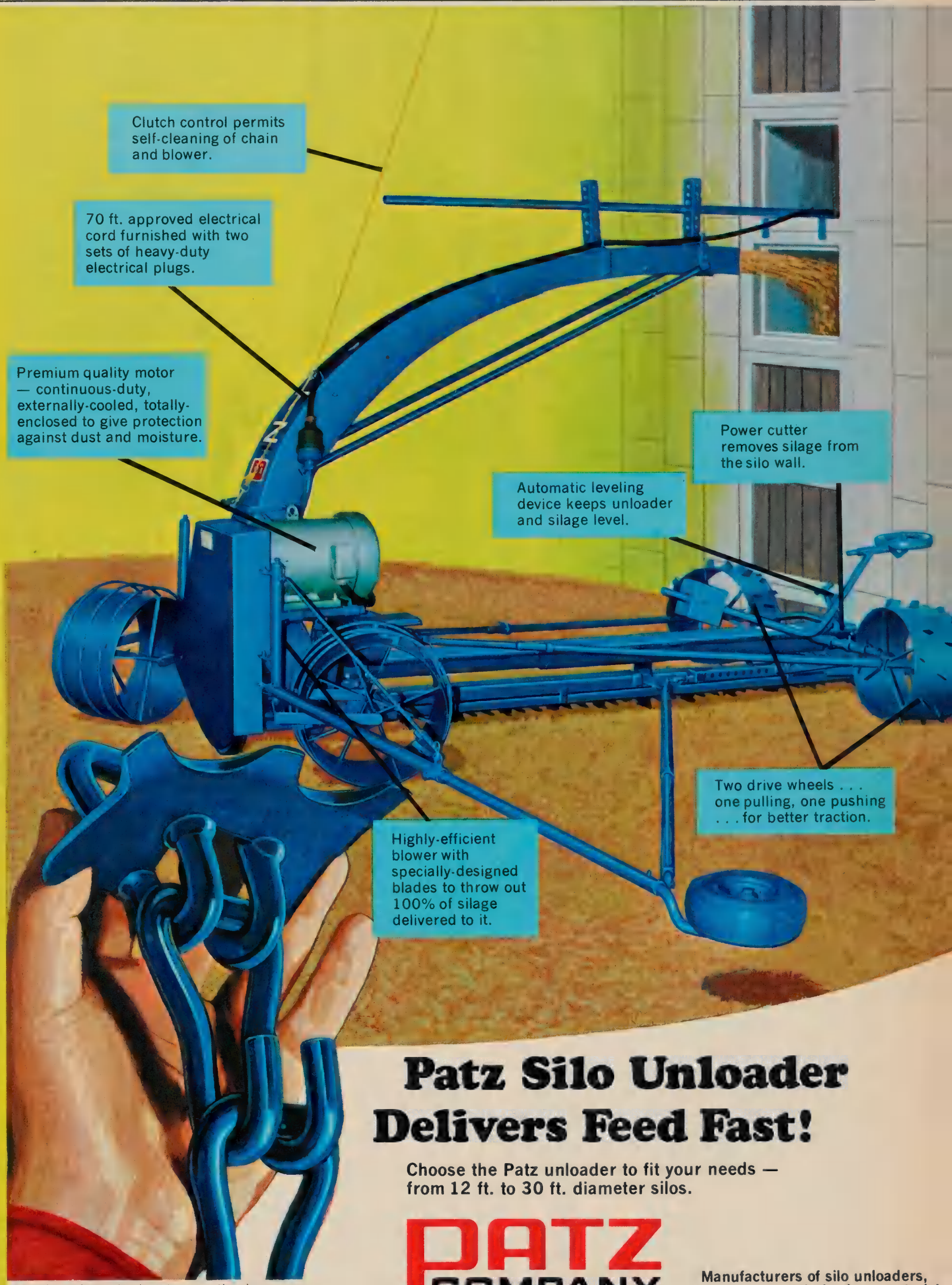
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We're listed on the facing page.



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Kirby . . . . .

(Continued from page 13)

Agricultural Marketing Service, a subsidiary of the New Jersey Farm Bureau.

This new project involves dairymen who are seeking herd replacements, and it provides opportunity to former dairymen who no longer are producing milk. It will enable those operators who have livestock facilities to grow heifers for the larger dairies that are seeking replacements.

This might well be an important part of the changing agriculture in the Northeast where the larger dairies lack space and land on which to grow their replacements.

HARVESTERS ARE HERE

New Jersey fruit and vegetable growers who have a deep concern over the uncertainty of future labor supplies should take a close look at the inroads being made by specialized harvesters.

The list of mechanical harvesters in New Jersey has been compiled by Fred Watts, chief of the Bureau of Rural Manpower Services.

Asparagus (selective)	29
Asparagus (non-selective)	28
Blueberry (over-the-row)	51
Blueberry (other)	12
Carrot	14
Cranberry	31
Grape	3
Lima bean and pea	30
Nursery stock	35
Onion	11
Potato	76
Snap bean	64
Sweet corn	22
Tomato	43

No figures are available on grain and corn combines. Some idea of the number of workers being replaced can be estimated from harvesting records. An asparagus harvester can harvest up to 100 acres per growing season. King Cole Canning Company, Milford, Delaware, harvests 1,200 acres with 12 machines, replacing more than 300 workers.

Kelly Brothers, Woodstown, has four snap bean harvesters that do a better job than 400 workers.

A pickle harvester is here . . . the cabbage harvester has been perfected . . . and the peach and apple harvesters look promising.

POULTRY OUTLOOK

The egg industry is still going through the wringer. The hen population in New Jersey is now down to about three million birds, compared to about 15 million at its peak.

There is light ahead, even though it may be dim. The big problem in recent years has been over-production . . . partly as a result of the success of the Marek's disease vaccine. It has taken about two years to balance supply and demand.

While prevailing prices may be a bit better than one year ago, they cannot be accepted as a lasting improvement. There has been a halt in the construction of huge "egg factories" with 100,000 or more layers.

County agricultural agent Charles Dupras believes that more realistic prices can be achieved only with a reduction in the supply. In his opinion, there is still a place for the 10,000-bird flock. This involves the development of local markets such as the "7-11 stores," dairy markets, and small chains.

At the present time, New Jersey produces less than 50 percent of the eggs consumed there.

IMPORTANT MEETINGS

Two important farm conventions are scheduled for January. The Vegetable Growers Association is holding a meeting at Vineland on January 16-17, at the new Holiday Inn.

The annual Farmers Week programs will start on January 24, followed by a presentation on the future of agriculture on the 25th.

FALSE ADVERTISING

The State Department of Agriculture has adopted a fair-trade regulation on labeling and selling milk.

The regulation is designed to prevent stores from advertising skim milk and low-fat milk as "milk." The butterfat content of "milk" must not be less than 3.25 percent.

The butterfat content of skim milk and low-fat milk is anything lower than the legal standard.

The New Jersey Supreme Court recently upheld the right of the state to establish minimum milk prices in the public interest.

BLACKBIRD CONTROL

A recently-approved control for blackbirds is announced by the Delaware Extension Service. This new product is "Avitrol," available through professional applicators.

Blackbirds that eat treated grain react vigorously, fly erratically and emit distress signals. As a result, the flock leaves the field.

The manufacturer stresses that the pesticide is biodegradable, and the birds that eat the treated grain may or may not die . . . depending on the amount consumed.

This chemical is registered for the control of sparrows, certain blackbirds and cowbirds around roosting and nesting sites, for control of starlings around feedlots, and for other birds around airports and public buildings.

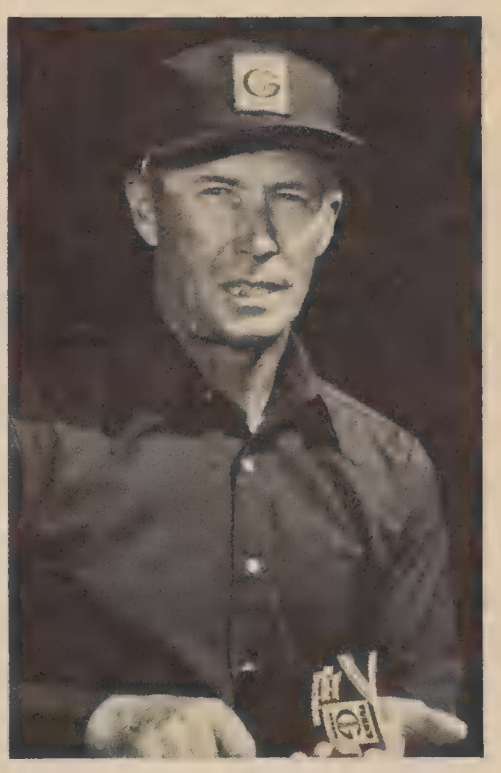
HOG CHOLERA

Effective December 1, the entire State of New Jersey was placed under quarantine to prevent the further spread of hog cholera. Absolutely no movement of swine within the state is permitted for any purpose until further notice. This includes the movement of swine to slaughter, which was permitted under an earlier quarantine of portions of the state.

The quarantine was imposed following the confirmation of several new cases of hog cholera. In all, approximately 10,000 animals have been destroyed in an attempt to prevent spread of the disease.

All swine growers should keep a close watch on their herds and immediately report any sick animals to their veterinarian or county agent. The quarantine cannot be lifted until all diseased animals have been located and eradicated.

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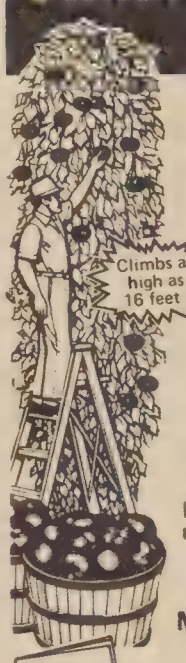
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Doc Mettler comments on:

Starting calves



Probably few of us will admit to making New Year's resolutions as such, but there is still a feeling at the beginning of the year that if we get started right, things will be better than the year before. There is no doubt in my mind that a good start on anything is a terrific advantage, whether it be the first score in a football bowl game or the first few weeks in a baby calf's life.

I always remember the reply of a crusty old Yankee when I complimented him on his slick, well-grown heifers. "Hell, Doc, any of 'em will grow if you feed 'em." This is only partially true, however. You have to feed them the right stuff at the right time and keep the "bugs" out of them. Those "bugs" can be anything from viruses they acquire the day of conception to worms they pick up in contaminated stalls and yards.

Let's start at the very beginning, with a clean cow bred to a clean bull (or AI with clean semen). Cows that have had calving problems, retained placenta, or show abnormal discharges should be checked by your veterinarian, treated, and allowed a little more time than the usual 60 days after freshening before being bred again. Semen from disease-free bulls is assured from name bull studs, but when an unknown source is used, problems could arise.

When natural breeding is used, follow your veterinarian's recommendation to use only a clean bull. No bull today is valuable enough to risk disease in your herd. There are too many others, and too much good semen available, to take a chance on questionable health in a bull.

At freshening time, the place where your cows calve can make a difference in the health of the calf. A clean, well-bedded, large box stall is preferable to anything else this time of year. The straw pack loafing area as used for a freshening area by some free stall owners is good. Anything is better than a stanchion or free stall for calving.

New Place

If you know that every calf born in a certain part of the barn comes down with scours, find a new freshening area. This is sometimes the only way to combat calf septicemia. No amount of cleanup seems to help prevent this type of infection.

If at all possible, treat the navel cord of the calf with iodine immediately after birth. Any injections given to the cow carrying the calf, or to the calf at birth, should be on the advice of your veterinarian. There are certainly far too many "if" conditions to mention more than that here. Your veterinarian knows your herd and your area, and if he advises certain injections to prevent disease by all means follow his suggestion.

I have met veterinarians who are such purists that they feel **any** injection given to a newborn calf is like cheating at solitaire. Most, however, feel that if one calf in ten or twenty may be helped to avoid scours by a pill or injection, the small cost and effort is worthwhile.

Colostrum

The most important thing in getting calves off to a good start is making sure they receive a feeding of their own mother's milk (colostrum) as soon as possible after birth. I personally do not like to see the calf nurse its mother, but receive the colostrum from a pail or nipple feeder. This is not for the sake of the calf, but for better milk letdown in the cow. If possible, the first four feedings should be colostrum from the calf's own mother or some other fresh cow.

In a later issue, there will be information on so-called "pickled milk" made from colostrum. I do not know if this contains all the antibodies of fresh colostrum. However, colostrum may be kept for a few months in the freezer and still be of value. In large herds this is seldom necessary, but in a small herd where one cow calves at a time days or weeks from others, a little frozen colostrum night make the difference

(Continued on next page



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"Ed isn't hitting it off with the new Ag Agent I can tell!"

saving a valuable calf.

During cold weather, the greatest aid (after colostrum) in saving a weak calf is a heat lamp or light. These are fire hazards and should be used with care, but a sick, chilled or weak calf sometimes responds in minutes to warmth from a heat light or lamp.

I do not like heaters with blowers on calves, but would rather rely on radiation heat. If you are not using heat now, the next time you treat a sick calf, or fear one is too weak to survive, try a simple flood or heat lamp rigged up just out of reach of the calf and see how much faster improvement occurs.

My personal preference on housing for calves during the first few weeks is individual stalls. After two or three months, put them in community pens if you wish, but as babies, the individual stall is important to prevent crowding, injury, sucking, picking up disease from each other, and for ease in caring for the calves.

Over the past 20 years, various milk replacers for calves have come and some have gone. I know certain individuals can do a good job of starting calves on a milk replacer, but they are in the minority. I would like to see some cost figures comparing milk replacer with whole milk, but I cannot see that even with seven dollar milk there is any great saving by using milk replacers. Besides, it has always seemed as if it would be foolish to have money taken from my milk check to advertise milk (which I truly believe is money well spent) and then use a milk substitute to raise my calves!

Careful

The people who have success with milk replacers are meticulous and careful in everything they do. Next to milking, the calf-raising operation is the most important job on a dairy farm, and it takes the best man (or better yet, woman) available. Whether you feed milk or milk replacer, using it at the same temperature in the same amounts from clean pails is very important.

You can get away with a little more with milk than with milk replacer in this respect, too, except perhaps the cleanliness. Calf pails should be washed with the same care as milk pails. One step further is the rule that some use: "Five calves, five pails, ninety calves, ninety pails." This may sound over-cautious, but when it comes to starting a calf, you cannot be too careful.

One more point often argued on milk versus milk replacers is that switching calves from one cow's milk to another can cause problems. This might be so if exactly the same cow was used each time. My experience has been that where different cows are used each day for "calf cows" . . . making use at random of the mastitis-treated cow, the fresh cow, the milking cow . . . little problem is experienced.

Clean

I would like to repeat again, however, that feeding milk the exact same temperature and in the same amounts from meticulously-clean pails is a must in calf raising. If you never feed a calf from a pail you would not drink from yourself, you won't get into too much trouble.

Calves should have access to early-cut grass hay at a few days of age, and be started on grain almost as early. Free choice of one of the many good so-called calf starters is a good way to start, or you can feed a good quality dairy ration to calves. Once calves are eating hay and grain well, milk can be cut back or diluted with water. The best calves I see are ones that go from colostrum to whole milk to hay and grain and whole milk, and at two or three months of age are completely weaned from milk.

Close to where I live is a farm where the father-in-law in the family retired from city business a few years ago and has taken over the calf-raising operation. In the past two years, he has started and raised over 100 calves without losing one.

Beginners luck? I would say no. This man was a good businessman who paid attention to detail. When it comes to raising calves, detail is most important. To switch this around a little, starting calves is good business.

Ketosis, displaced abomasums or breeding complications may be the direct result of feeding cows a diet lacking a proper hay ration.

MAGNETIC PERSONALITY

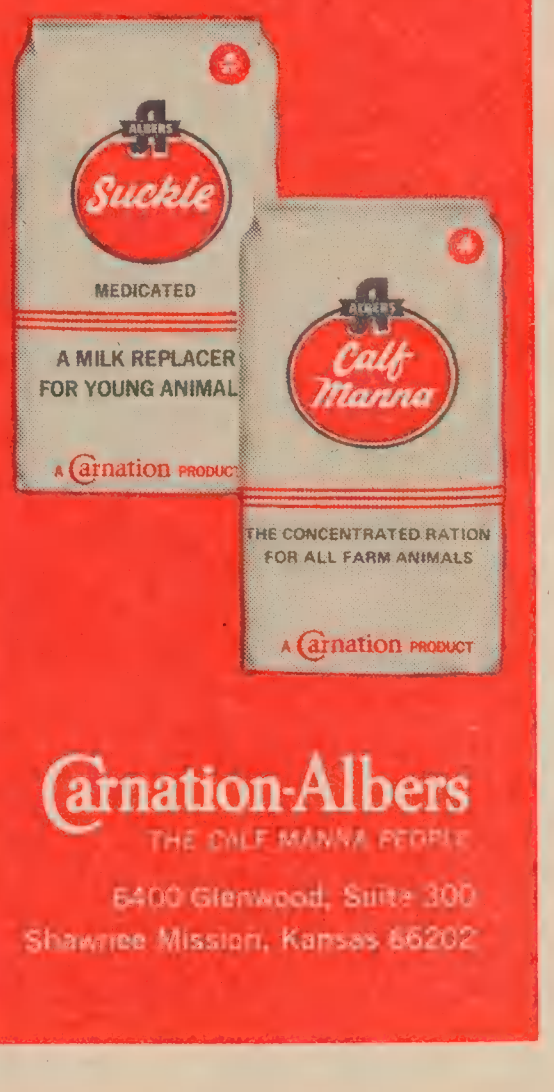
The A.R. Wood Manufacturing Company of Luverne, Minnesota, is selling a Serv-O-Matic Dairy Feeder that is activated by a magnet fastened around a cow's neck. Not **all** cows, though, just the top-producing ones in the herd.

The entire herd can all be housed in one area, but only high producers are "fitted" with the magnet. When one of these puts her head into the feed trough opening, the magnetic switch begins dropping feed into the trough at the rate of one pound per minute . . . the rate a cow can clean up.

One unit is reported capable of handling 20 to 30 cows. In feeding trials, cows with the "magnetic personality" have averaged to eat an extra 10 pounds of grain per day as compared to their non-magnetic herdmates.

These two pens of calves look alike...

but...



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Calves on Albers Program (pictured at 10 weeks) gained 203 lbs. in 17 weeks.



Calves on control program (pictured at 10 weeks) gained 161 lbs. in 17 weeks.

Calf Manna-Suckle feeding makes a predictable difference

Research has demonstrated that the energy of the ration is the most important environmental factor governing weight gain. Size and weight, not age, determine the time of sexual maturity. Calves raised on the Albers Program make early, faster, more efficient weight gains, as indicated on the chart below. These results are due to feeding Suckle and Calf Manna the first 60 days, both high in protein, energy and nutrition.

HERE IS THE PREDICTABLE DIFFERENCE

Trial (#7DC-1)	Weight at 17 Weeks	Pound Gain 0-17 Weeks	Average Daily Gain	Cost per lb. of Gain
Lot 1 (Suckle & Calf Developer)	292	203 lbs.	1.71 lbs.	18.8¢
Lot 2 (Control)	251	161 lbs.	1.35 lbs.	19.3¢

Compare your figures with the figures on the chart. Is there a predictable difference in your present feeding program? There is in Carnation-Albers.

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What's NEW in the FIELD



by Bill Pardee

EARLY ordering of seed should pay off this year to be sure you'll get the variety of your choice. Last summer's miserable weather left many seed crops short, in some cases well below normal demand. Oat and forage crops are nearly all tight. About the only crop with plentiful seed supplies is corn.

To help your spring seed purchase plans we've pulled together the following information on recommended varieties and the outlook for seed. We've included those varieties well proven in research trials and farmers' fields, with comments on available seed supplies as reported to us by Northeast seedsmen.

Let's take alfalfa first, since its popularity is booming. Alfalfa seed use went up another 17 percent last year in the Northeast, despite a horrible spring planting season. Alfalfa use has nearly doubled in the past four years, clear testimony of the value of the "queen of forages."

While increasing alfalfa purchases, dairymen have also been shifting varieties. Currently the most popular are Saranac and Iroquois, two first-class varieties from Cornell. Both continue to top yield trials in New England, New York, northern and western Pennsylvania and even much of the Midwest. Saranac does best on well-drained soils with Iroquois only a touch behind. Iroquois surpasses Saranac on moderately well-drained soils or on fields with spotty drainage patterns.

Resistant

Both are long-lived varieties that resist bacterial wilt, a disease that can kill susceptible varieties in the second and third years. Both are fast growers and do well for haylage, silage or hay. Both start fast and establish well in seedings made with or without oats. Seed supplies of both varieties should be adequate to meet demand.

Several seed companies are developing new varieties for the Midwest and some of these look good in the Northeast. Dr. John Baylor, Penn State forage specialist, recommends Saranac and Iroquois, and also lists Progress, Promor, Titan, Weevlchek, WL-210, WL-305, WL-306, Dekalb 123, Dekalb 153 and Pioneer Brand 520, 525, and 530.

In New York trials, none have done better for us than Saranac and Iroquois, but we've been pleased with the performance of Promor, Thor, WL-305, Weevlchek and Pioneer Brand 520. All resist bacterial wilt, start fast, yield well and should do well on New York farms.

In southeastern Pennsylvania and Maryland, anthracnose sometimes hits susceptible varieties, including Saranac and Iroquois. Anthracnose can kill individual stems and make a field look pretty rugged, sometimes reducing yield and occasionally knocking out the stand. If you farm in these regions and have had anthracnose problems you may wish to select varieties with some degree of resistance. Among those noted by Penn State and Maryland agronomists are Team, Titan, Weevlchek and WL-305.

Anthracnose is a southern disease, is not a problem in New York, and is rare in northern Pennsylvania. Best bet is not to get overly concerned unless the disease has been identified in your area.

The national alfalfa seed crop was down last summer, so there'll be short supplies of many varieties. Saranac and Iroquois will probably be adequate, though the overall alfalfa seed shortage may focus even stronger demand on these varieties.

Trefoil

Birdsfoot trefoil seed is extremely short this spring. Severe icing killed stands in key production areas last winter. Then last summer's June monsoons arrived right during the normal trefoil pollination period. The bees that normally do the job stayed in their hives. When the rains stopped, the trefoil flowers had mostly gone by so little seed was set. Many New York seed growers report only 10-15 percent of a normal crop. Some have no crop at all.

And New York wasn't alone. Bad weather hit trefoil seed crops elsewhere in the U.S., Canada and even Europe. Net result is a worldwide shortage of trefoil seed, with scanty supplies and high prices.

If you can get them, the best bet varieties include Viking and Mansfield for hay and pasture, with Empire number one for long-lived pasture. A newcomer, Maitland, from Ontario, Canada, has equalled Viking in Cornell trials, and should fit into the same use slot. But if you want seed of any of these varieties, get your order in early, for supplies are terribly short.

Second Choices

The above varieties are first choice and normally all we'd list if seed were plentiful. But several second choices should do a satisfactory job. Leo, a Canadian version of Viking, does nearly as well and will be available in small quantities. European seed isn't as dependable as U.S. varieties in performance, but where available, can provide a hay-type trefoil.

Clover seed supplies are better than trefoil, but still extremely short. The national crop was down 33 percent from 1972, with Pennscott stocks particularly short. Early ordering will be a must if you want this variety. Lakeland, an improved variety that does well in New York,

is another possibility if you can find seed.

Crownvetch seed supplies are plentiful, perhaps the only crop where no shortages exist at any level. Crownvetch does a first-rate job of preventing erosion on steep slopes, banks and other areas where soil washing is possible. It has also done well as a pasture crop for grazing cattle in Pennsylvania and could substitute for trefoil in many rough land sites. We'll report more on this species in the next issue.

Grasses

Climax timothy continues to perform best among timothy strains. Climax matures a week later than common timothy and provides more leeway in harvesting quality hay.

Timothy seed supplies are short and Climax seed is particularly tight. Here's one crop where early order may be a must to get the variety of your choice.

Saratoga bromegrass ranks tops in this crop for the Northeast, with the Lincoln variety a good second choice. Baylor and Southland, both new varieties from the Southwest, show promise in Pennsylvania.

Pennlate and Pennmead, orchardgrasses from Penn State, are available and should normally be first choice over common orchardgrass. Pennlate matures two weeks later than common and ranks highest in palatability. Pennmead, a week earlier than Pennlate, outyields its later brother and holds its feeding quality better than common. Common orchardgrass does well throughout the Northeast, but its early maturity usually makes it low in quality at first-cutting time. For this reason, later-maturing Pennlate and Pennmead are preferable.

Combination

The combination of Iroquois alfalfa, Viking trefoil and Climax timothy provides a versatile mixture for fields that slope up, down and sideways or where drainage is good, bad and indifferent, all in the same field. Iroquois will establish where the drainage is good, while Viking trefoil can persist in spots too wet for alfalfa. Timothy fills in throughout the field, supplementing both legumes and persisting where they kill out. This mixture fits countless fields through the hills and valleys of the Northeast and can do a fine job for you — if you get the seed.

Oats

Oat seed supplies are short and low in quality. Last summer's poor growing season featured only one really hot spell, but this came right when oats were flowering and high temperatures "blasted" or damaged the tender floral parts, causing many unfilled kernels. Our heavy summer rains also leached nitrogen out of oat fields, resulting in poorly filled grain even where seed set was good. As a result seed oat crops were cut drastically.

Rain and high humidity also "weathered" or darkened the hulls of most oat kernels. You'll find few "bright colored" seed lots this spring. But color isn't really important in seed oats so long as they germinate well. Check your tag for high-germination oats and don't worry about weather-darkened kernels.

Among oat varieties, Orbit continues to be the best bet for New York and New England. Its shorter straw helps its stand against lodging and its yield capacity keeps it at the top of the list. The Russell and Gary varieties also do well in New York, though both are taller than Orbit and 2-5 percent lower in yield. Their height helps, if you want straw and are willing to sacrifice a bit of grain.

Harmon, new from Canada, also yields and stands well. Astro, just out from Cornell, will not be available in '73, though certified seed growers will be growing stocks for 1974. Astro has both yield and standability advantages over Orbit and should become a favorite during the next several years.

Penn State agronomists suggest Pennfield as a top variety for Pennsylvania farmers. This variety yields and stands well under conditions in the Keystone State. Orbit also has an excellent record in Pennsylvania. Clintford and Jaycee, both early varieties with good standability, also look good. Russell and Garry do well in Pennsylvania, though they don't stand as well as the shorter, earlier varieties noted above.

Corn

The corn seed picture is a pleasure to review after the shortages in other crops. In general, supplies look excellent. This year's stocks are practically all on "normal" cytoplasm and so should carry resistance to southern and yellow leaf blights. Be sure to select only normal cytoplasm hybrids since these are plentiful and widely available. You may hear of occasional "bargains" on "T" seed for silage, but don't bite. The risk of loss from leaf blights makes these too big a gamble.

And beware of "T" cytoplasm hybrids that you may have carried over in the barn or shed. I saw several fields hard hit last summer that had been planted to "T" seed carried over on the farm. Leaf blight was widespread through the corn-producing areas of the Northeast last year, and enough disease will overwinter on debris to provide plenty of inoculation to go around for all this coming spring. The only way to fight this will be to plant resistant "N" hybrids.



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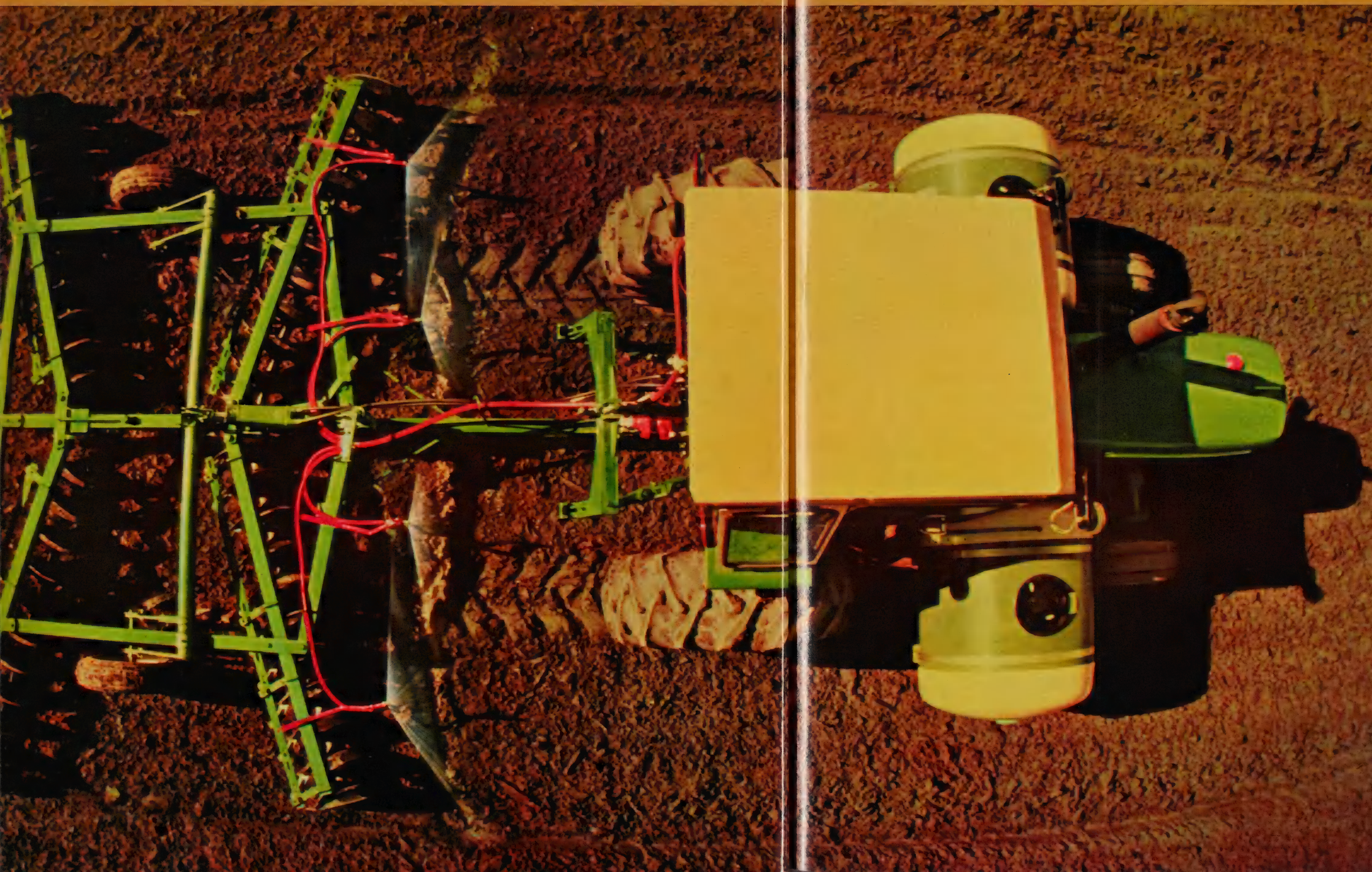
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Northeast FARM EXPERIENCE



County agent Bill Corey (left) visits with Jack (center) and Arnold Munger.

BUILD THEIR OWN

Arnold Munger, along with sons Gerald and Howard (Jack) operate a dairy farm near Benson, Vermont. The total work force also includes one full-time hired man, and one who works part-time. In the rugged Yankee tradition of rural Vermont, the Mungers have combined a great many skills for successful farming.

And they've had to . . . for Arnold recalls, "When I came here in 1941, the barn would hold only eight cows. We had to rotate our 24 cows through the barn in order to milk 'em . . . it sure was tough going for a time."

Grown

At that time, there were 300 acres in the operation. Now it's grown to 1,000 acres owned, and another 500 rented. There are 220 milkers, and they're still "rotated," but now through a double-eight herringbone milking parlor featuring a rubber matting on the floor that is "expensive, but mighty comfortable." There are two big barns now . . . one 56 x 132 housing young cattle, and a 369 x 48-footer stabling cows in free-stalls.

The Mungers cut the timber for these buildings on their own farm, sawed it into lumber on their own sawmill, and then erected it themselves (with the help of Arnold's brother, a professional carpenter). Building costs are at an absolute minimum here.

Jerry is a competent mechanic, and keeps the farm rolling stock rolling . . . as well as doing repair and maintenance work on a school bus and town highway trucks.

More Time

Amidst all the work and management responsibility of so sizable a business, Arnold found "time on his hands." So he began building pallets for the slate quarries out of scrap lumber not usable for much else. An arch-rafter building primarily used for machinery storage makes a good workshop for such purposes.

A bunker silo (50 x 165 x 8 feet sidewalls) holds corn from the 250 acres grown in 1972 . . . a 2060 Harvestore is filled with haylage. Milking cows also get free-choice dry hay.

To keep busy, the Mungers made 2,000 maple taps in 1972 . . . have had as many as 4,000 in years past. During the winter, they keep things humming between chores by working in the woods to get out logs for sawing, and to make firewood for boiling sap.

"I marvel," says county agent Bill Corey, "at their ability to put it all together. They're always planning ahead, and getting the job done."

Symbolic perhaps of a recent bit of relaxation in the work schedule are the radios on each of three tractors. They're not two-way, just for listening to some music, the weather . . . or even a football game. "We think they're great," enthuses Arnold . . . but they obviously don't impede getting the job done!

— *G.L.C.*

DAIRYMEN

Brothers Robert and William Nolan operate Nolan Farms, headquartered on the West Corey Road just west of Venice Center (Cayuga County), New York.

Time was when the Nolans were known for their acreages of dry beans . . . typically between 200 and 300 acres each year. More recently, they grew as many as 250 acres of snap beans for processing on their 800 acres, 700 of which are tillable.

Times change, and 1972 marked the first year that Bob and Bill can remember when not a dry bean was grown on the place. "Cash crops offer erratic incomes," Bill comments. "Prices and yields swing widely from year to year." They've now cast their lot with the dairy business . . . an enterprise that has long been underway at Nolan Farms, but not in the present magnitude.

New Barn

The 61-cow stanchion barn that once housed the milking herd is now used for young cattle. The milking herd was moved in October, 1971 to a spanking-new free-stall barn of a type commonly referred to as a "cold barn." It measures 286×86 feet, plus a wing (40×110) containing the hospital and holding area, the milking parlor, milkroom (with its 2,450-gallon bulk tank), utility room, and office.

The milking parlor is a double-six herringbone equipped with a DeLaval clean-in-place system. No milking equipment has to be hauled back and forth twice a day to the milkroom; milking-machine heads are attached to cleaning equipment right in the parlor. After a year of operation, the sanitary requirements for milk have been passed with flying colors.

No Grain

No grain is fed in the milking parlor . . . there aren't even any grain buckets there. Instead, grain is combined with corn silage, and a total-mixed-ration (TMR) is fed at the bunks in the free-stall area. Labeled by some as "casserole feeding," this presently involves putting corn silage from the big bunker silo into a wagon equipped with a blender box, then augering a grain bunker mix (22 percent protein) on top of silage, and the unloading mechanism of the wagon mixes the "casserole" as the material is unloaded.

The bunker silo measures 60×250×10 feet high; its floor slopes two feet from one end to the other. Floor is five inches of concrete, reinforced with wire mesh. No cover is put over the thoroughly-packed silage, but the Nolans report very little spoilage. The wood-sided structure, built entirely by a contractor, cost $15,000 for a capacity of 6,000 tons.

At present, corn silage is the only roughage being fed the milking herd . . . but plenty of home-grown dry hay is available for inclusion in the TMR.

How about getting cows into the parlor without grain? "We use a crowd gate in the holding area," Bob comments, "and have had no problem." The holding area will accommodate 70 cows.

The barn is of a design commonly referred to as a "Penn State barn" with a drive-through alleyway down the center, and two feeding bunks alongside. There are 220 cows at present, but the barn can hold 260. Cows are separated into four groups . . . three according to production level, and one group of dry cows. The herd average is generally in the range of 14,500 to 15,000 pounds of milk per cow.

Custom Work

The Nolans hire a lot of custom work . . . the silo filled (for $30 per acre), most plowing is hired done, as is herbicide spraying and spreading fertilizer. They do their own planting, though, with a six-row corn planter . . . and they did plow 20 acres in '72 with their own equipment.

"We keep our overhead costs down by hiring custom work done instead of owning equipment," Bob reports. "Besides, it takes three of us six hours a day to do chores and care for the herd . . . just doesn't leave enough time to do all the field work without an expansion of the labor force."

At present, there are three men operating the farm . . . the Nolans and employee Laverne Bennett. Bob has six boys and two girls . . . Bill two boys and three girls . . . who also help out at times between schooling schedules. Another man works only at milking on Sunday . . . enabling Bob, Bill, and Laverne to each have two consecutive Sundays off in rotation. — *G.L.C.*

INJECTED

A fragrant, mouth-watering aroma of charcoal-broiled hamburger drifts outward from the back yard of an affluent suburban home.

Just across the fence, the pungent, nose-tingling odor of freshly-spread chicken manure moves to meet its partner.

The two are like oil and water . . . they just don't mix!

It didn't take poultryman Joe Willis of Manlius, New York, long to find that out. When he first came to the area, Joe had very few neighbors. "But then people moved out from the city, built nice homes right next door . . . and I was in trouble."

The problem was how to dispose of the manure from 20,000 caged layers and still keep peace with the weekend chefs. Joe's answer . . . soil injection!

Tank

Joe uses an 800-gallon Clay tank, equipped with a pto-powered vacuum pump and two injector blades. The blades are spaced 6 feet apart, but Joe doubles back over the same ground, straddling his tracks so that he ends up with a furrow every three feet. "You have to be careful," says Joe, "not to get the tractor or tank wheels where the injector knives have cut . . . or you may end up burying the rig."

I watched as Joe unloaded 800 gallons in one pass down a 250-yard field. I asked him if soil injection slowed down his spreading as com-



Bob and Bill Nolan (right) take a look at corn silage in their bunker silo.

pared to regular spreading. "It takes hardly any extra time," he answered. "I drive along about 2 or 2-½ mph. There's no flow regulator on the rig, so you have to go fast enough to cover the manure and not get too much in . . . or the pressure will ooze it back out the slit in the ground. I do unhook the injector and drain my hoses back to the tank before I leave the field." Joe spreads about 15 loads per acre . . . at 3 tons per load, that adds up to 45 tons.

Joe is enthusiastic about the advantages of soil injection. "It traps the odors in the ground. Now I can spread when I want to spread. I used to wait for cold weather to empty my holding tanks. That's when you're likely to get hung up with snow in the winter, or with early-spring mud. And that's tough on equipment.

"Not only do I eliminate the odor problem," he continues, "but I get full benefit of the manure, and reduce the chances of water pollution from runoff." Soil scientists can only concur with Joe . . . they report that much of the nitrogen in ammonia, a highly volatile substance, is lost from manure that is surface-spread. Incorporated in the soil, on the other hand, the nitrogen is quickly taken up by the soil organisms, or by the plants themselves.

I queried Joe about the system's disadvantages as compared to a conventional spreader. "Well, of course, there's some cost. I've had the tank and vacuum system since 1966. The injection equipment I added last year cost me $850. Probably the biggest disadvantage is that you need a bigger tractor to pull it. If you have one anyway for crop work, fine! But I had to go out and buy one . . . and that means more money. Probably with the newer tanks . . . running up to 1,100 gallons . . . a 60-hp tractor would be the minimum."

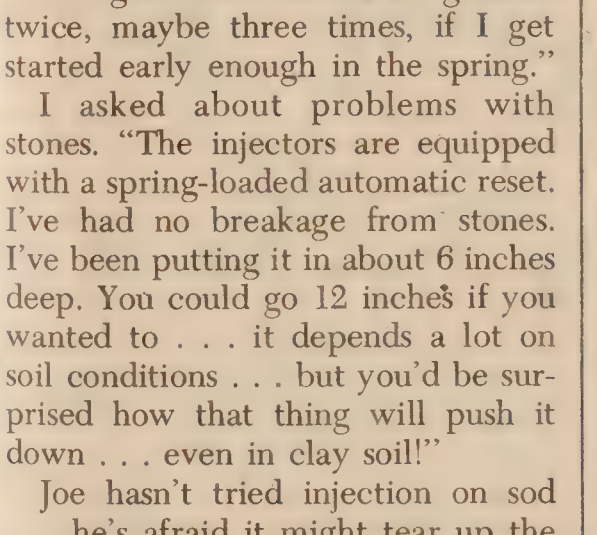
Joe saved four of his acres for summer spreading. "In summertime, the manure dissipates," he reports, "so I get over the same ground twice, maybe three times, if I get started early enough in the spring."

I asked about problems with stones. "The injectors are equipped with a spring-loaded automatic reset. I've had no breakage from stones. I've been putting it in about 6 inches deep. You could go 12 inches if you wanted to . . . it depends a lot on soil conditions . . . but you'd be surprised how that thing will push it down . . . even in clay soil!"

Joe hasn't tried injection on sod . . . he's afraid it might tear up the alfalfa too much. Other farmers report that a rolling colter is probably a must for those using injection on sod.

Joe thinks that injection may be the answer for many operators who have appropriate soils in situations like his . . . poultry, dairy or livestock men who have both liquid manure and close neighbors . . . and want to keep peace in the neighborhood. It's like a landfill, bury it and you trap the odor. "I'm more than happy with it. It's one of the few summers I haven't heard some complaints." — *William Quinn*

Joe Willis explains the workings of the injector equipment in background.



TEACHER — FARMER

Robert Rizzon of Pawlet, Vermont, was once a teacher in junior high school . . . but for the last 10 years has been a full-time farmer. He got into the heifer-raising business while still teaching, and decided to build a dairy barn one year when the bottom dropped out of heifer prices.

With the help of another teacher, he set to work . . . and the two of them mixed, wheeled, and poured 92 cubic yards of concrete for the barn foundation and floor. The barn is built of white pine cut from woodlands on the farm. Now he has 74 milking cows, owns 264 acres, and rents more acreage.

Innovator

Bob is an innovator . . . was one of the early users of corn silage as the only roughage (except for a little beet or citrus pulp during the winter). He has no haying equipment on the farm. Silage is stored in a bunker silo measuring 40 x 100 x 8 feet high. "Pack silage thoroughly," Bob recommends. "It's the key to minimizing spoilage."

He hires one full-time employee and uses an incentive plan to encourage performance . . . a base salary plus a percentage of the milk check. This promotes a personal interest by a herdsman in doing a good job with cattle that are not his own.

The Rizzon farm boasts a DHIA herd average of 16,700 pounds of milk per cow . . . evidence that a man not raised on a farm can successfully learn the trade. A visit with Bob shows that he is alert to new developments in agriculture, and constantly probing for ways to use them profitably. — *G.L.C.*

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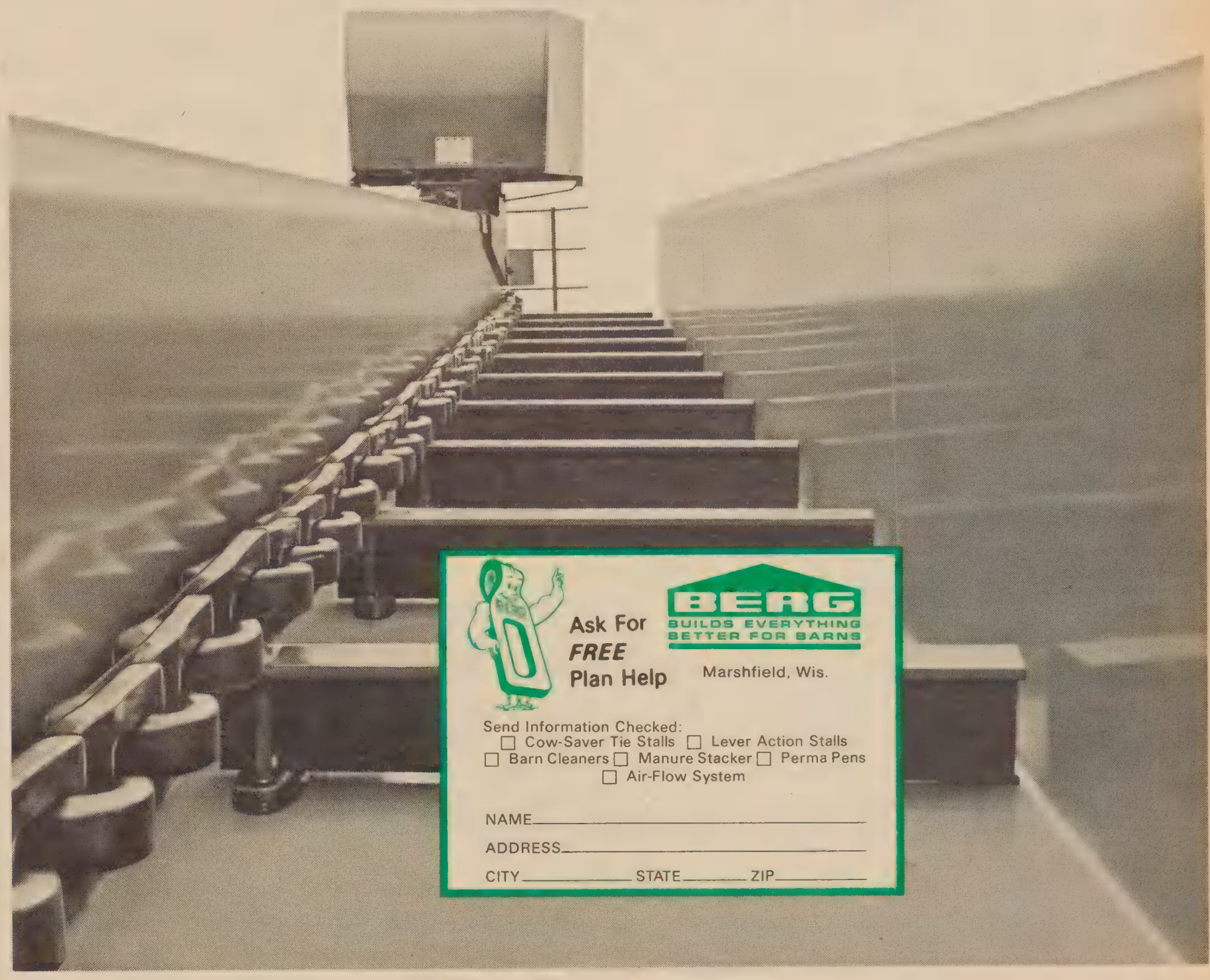
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W. J. P., Indianapolis, "I have used TARLEINE and found that it is everything you claim it to be. It has cured my piles and I am so thankful to you for putting out such a remedy."



Janet Kirby (left) visits with JoAnn Herman about the program of Women for the Survival of Agriculture.

Survival line

A GROUP of attractive . . . and very determined . . . women forced a showdown with New York apple processors in 1972 that may mark the beginning of a new era in farmer bargaining. They picketed processing plants in Western New York to prevent delivery of apples at prices which would have continued the ruinously-low returns to fruit farmers of the past three years.

Fruit growers in Niagara, Orleans, Monroe and Wayne counties left hundreds of thousands of bushels of apples unharvested in 1971 because prices were so low. The families of fruit growers tightened their belts . . . as farm families have traditionally done under the lash of economic pressure . . . and looked ahead to 1972. Come the next harvest season, and processors offered the same prices as before, using as an excuse that the Price Commission had frozen prices of processed apple products.

Cleared up

This problem was quickly cleared up, however, leaving no other reason than processor greed for keeping prices down to the farmers. To add fuel to the fire, it was noted that farmers in **other** processing-apple areas of the U.S. had already been promised 50 cents per hundredweight more than last year.

Negotiations between farmers and processors were getting nowhere, though, within a few days before harvest was to begin. Processors held tight, depending on panic to grip the fruit growers when the first ripe apples began to drop on the ground. It seemed another in an endless rerun of that dismal show featuring many individual farmers pitted one by one against a few processors holding all the cards.

But some farmers' wives had heard about an organization in Michigan called Women for the Survival of Agriculture. They decided to follow that organization's example and picket the Duffy-Mott and Seneca processing plants to prevent apples being delivered by some farmers apparently willing to accept the low prices being offered. Leaders included Mrs. Gary Fitch, Olcott; Mrs. Francis Kirby, Albion; and Mrs. Sheldon Furber, Wolcott.

The gals formed a picket line across the entrance to the processing plants and talked drivers of apple-loaded trucks into turning back. Wearing white gloves and winning smiles, they did what their menfolks could not have done without probable violence.

For a week . . . 24 hours a day... the women manned (uh, womanned) their Survival Line. Finally, the processors agreed to raise the price by 50 cents per hundredweight (up from $2.75 to $3.25 on the top grade) . . . and the picket lines were withdrawn. The higher price wouldn't buy any new snowmobiles, but it might at least help clean up the spray bill carried over from the year before.

"We had reservations about the method," Janet Kirby comments, "but the situation was desperate. We see our husbands work so hard for such long hours . . . and then to have them taken advantage of in the marketplace is just too much!

"When we listened a year ago to the women from Michigan," she continued, "we didn't think we could possibly picket anything. But survival provides enough incentive . . . and we found a week on the picket line worth more than a month of meetings."

Looking ahead, WSA leaders want to push for bargaining legislation . . . something similar to the Sisk Bill at the federal level, and something like it at the state level . . . requiring good-faith bargaining by processors. They want to acquaint non-farmers with facts about agriculture, and involve as many women as possible.

Credo

The credo of the organization reads as follows:

"Women for the Survival of Agriculture is a group of concerned women bent on action for the survival of a struggling industry.. Faced with rising costs, depressed prices, a disorganized marketing structure, unwarranted harassment from overlapping social and governmental agencies, we are a minority subsi-

(Continued on page 34)

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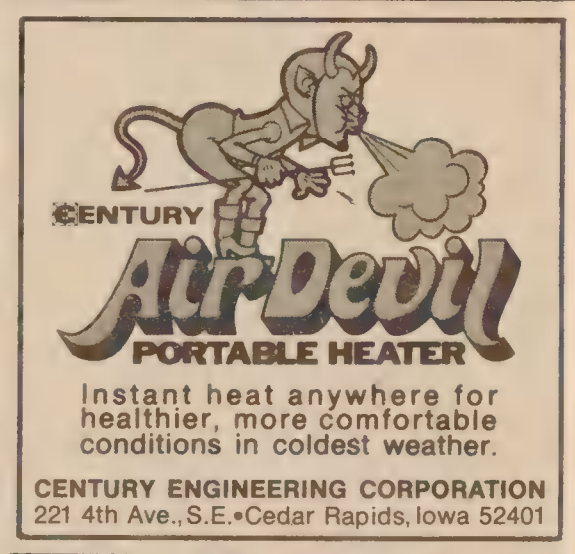
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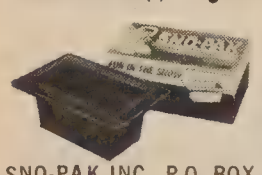
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GARDEN TALK

by George and Katy Abraham

Pruning Shrubs

When it comes to outdoor gardening, January is about the slowest month of the year. However, there are some chores you can do in this slack period, and one of them is pruning your shrubs and trees.

If shrubs are a neglected mass of sticks — a jungle of stems, you might want to tackle these. One way to handle this type of bush is to cut the stems back to the ground and let all new growth come up. Or, you can prune the oldest and poorest branches right back to the ground. Even evergreens which have been neglected can take some pruning.

Before we prune, let's see what the purposes of pruning are. Pruning rejuvenates a bush, thins out a plant so it can grow better, and keeps the bush under control.

There are a lot of man-made rules about pruning which scare gardeners, but actually all pruning does is to give your plants a special shape or form, controlling the size and density of a plant so it'll flower and look better. Pruning puts new life into a declining plant. In short, it's a pepping-up process for your plants.

Shrubs that flower in summer bear flowers on wood produced the same year. Thus, if these are pruned any time now or in early spring, more flowering wood will grow. Any time these shrubs have broken or diseased limbs or are too thick, get out the clippers and prune them, regardless of the season.

There's more to pruning than we've mentioned, but keep in mind it's better to take a stab at some kind of pruning than to let your shrubs grow into a jungle. If you're looking for a good rule of thumb to follow when pruning, remember "Be a barber, not a butcher," and you can't go wrong.

AA Pumpkin Contest

Which AA reader grew the largest pumpkin in 1972? We've had a lot of entries, but want to hear from the rest of you.

The present contest record has stood since 1968 when Lynn and Susan Price of Marietta, Georgia, won by growing a whopping 235-pound Hungarian squash. The largest pumpkin we've seen around here weighed 192 pounds. Getting a giant pumpkin to the weigh-in station is no easy task, as it takes a couple of people to lift it and a pick-up truck to haul it. Let's hear from you.

Incidentally, many wrote to tell us their pumpkins were giant sized but grew flat on one side and were badly misshapen. What causes this? You can prevent this lopsided growth while pumpkins are still small. Prop them up straight while about a foot high, and the pumpkins will grow nice and round. If you don't prop them up, they'll grow flat on one side.

Glads and Dahlias

Perhaps you rushed to get your dahlia clumps and glad bulbs in the cellar but forgot to treat them. We like to dust our dahlias with sulfur dust or captan and then store them upside down in boxes of peat moss (kept slightly moistened). Keep them in a place where potatoes can be stored, as they take about the same temperature and humidity. A little shrinking of the toes won't do much harm, but if you see mold on them, better sort our the affected ones and dispose of them.

If you didn't treat your gladiolus corms before storing, there's still time. Some like the Lysol disinfectant treatment — 1 to 1¼ tablespoons per gallon of water and soak corms in this for three hours before storing.

If you can store the glads at 35 degrees F. for two months or at 40 degrees for three months, it will kill all stages of thrips, even the eggs. The cool temperatures will also help preserve the corms. If you store glads above 60 degrees, the thrips breed and develop in storage, and next spring you'll plant infested corms.

Napthalene flakes can also be used for thrip control. Use 4 level tablespoons per 100 bulbs. Keep them in closed paper containers for four weeks at 60 degrees and then air before storing at 40 degrees. Stored corms may also be dusted with a 5% malathion or methoxychlor dust. Do not remove the papery skins from the bulbs now, as they protect the corms from drying out.

AA Garden Clinic

A reader writes, "We have a rubber plant whose leaves turn brown around the edges. What causes this?"

Answer — It sounds like your plant is overwatered or has poor drainage. Make sure there are pieces of pottery in bottom for drainage and use a mix of ⅓ each sand, peat and loam.

Recipe Contest...

When we closed our January issue, we had received 137 entries in our Casserole Recipe Contest. We will be testing many of the recipes, and it may take us several months to determine the winners. Please be patient, and we will publish names and recipes as soon as possible.

DO YOU HAVE . . .

A "recipe" for flaxseed cough medicine? **Mrs. H. Sutor, 88 Coppermine Road, Oxford, Conn. 06483,** would like very much to know how it is made.

A recipe for Rye 'n Injun Bread? This request comes from **Mrs. Patricia Lewis, R. D. 1, Dexter, Maine 04930.**

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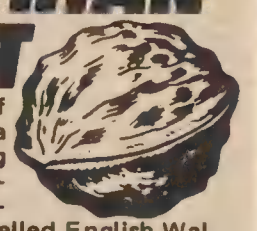


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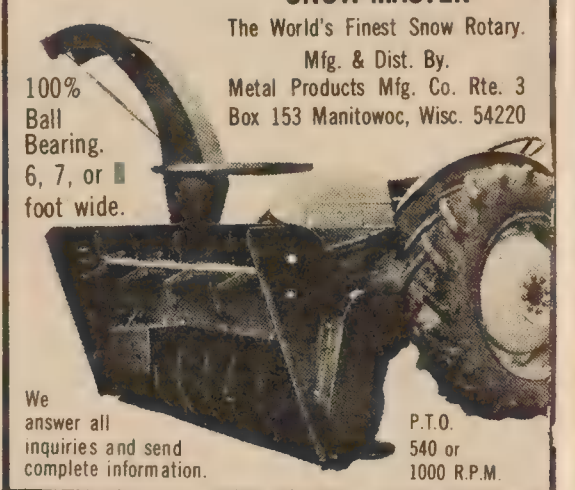
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Good Winter Vegetables

by Mary Ann Sieczka*



Photo: U. S. Dept. of Agriculture

There are so many different and delicious ways of cooking potatoes that it's no wonder they are one of our most popular vegetables.

Vegetables make our meals more attractive, giving variety in color, flavor and texture. They also add valuable vitamins and minerals to our diets. To retain their desirable qualities, follow these suggestions when cooking vegetables.

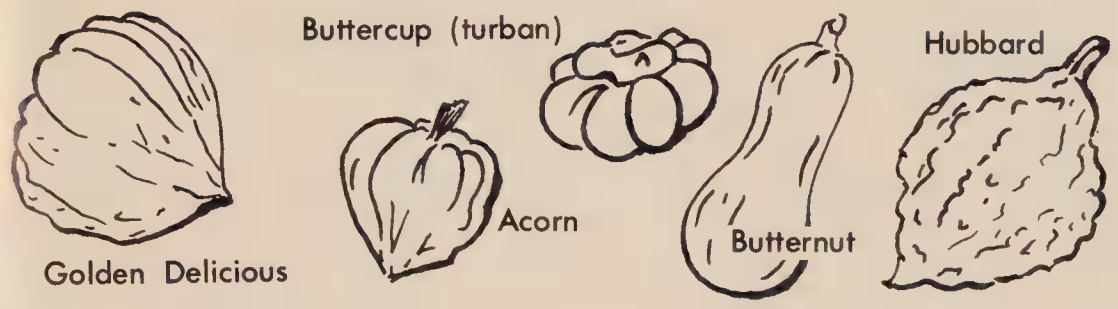


1. Use a small amount of water, just enough to cook them tender. Try to use the water you drain off in a sauce, gravy or soup. If this water is discarded, you throw away some of those valuable vitamins and minerals.

2. Cooking unpeeled vegetables in water, also steaming and baking them, preserves their food value. Use a high baking temperature or steam at 5 pounds pressure.

3. Cook as quickly as possible. Have water boiling when vegetable is added and keep it boiling; remove from heat as soon as it is tender. Over-cooking makes the vegetable mushy. If served slightly crisp, vegetables are more appetizing and keep their original shape.

4. Lids may be used to hasten cooking. Start green vegetables, however, with the lid off to help retain a brighter color. Remove lid toward the end of cooking period if liquid needs to evaporate.



Winter Squash

Let's look at two vegetables which are in good supply now. Winter squashes come in a variety of colors and shapes and are available from fall to early spring. Choose those with hard-shelled skin, avoiding watery spots which indicate decay. Leave stems on squash and store at a temperature near 50°F.

To cook on top of stove, peel squash, remove seeds and cut in pieces. When tender, either leave in pieces or mash, adding butter and brown sugar to your liking. If you're baking squash, put cut side down in a shallow pan and bake at 350° almost tender, 35 to 40 minutes. Turn cut side up, salt lightly and continue baking to serve in any of these suggested ways.

1. Brush inside with butter and sprinkle with brown sugar; bake 20 minutes longer or until tender.

2. Brush with butter and add ¼ pound sausage which has been browned and drained. Continue baking as above.

3. Bake cut side up for 20 minutes or until tender. Fill with crushed pineapple or creamed ham, oysters, chicken or crab. Return to heated oven for about 15 minutes or until heated through.

Popular Potatoes

Potatoes are one of our most versatile vegetables. They can be boiled, baked, fried, used with different sauces or in a salad, either hot or cold. Potatoes should be stored in a cool (near 40°), dark place to minimize sprout growth and to keep them from turning green. If stored in the refrigerator, they will develop a sweet taste, due to the conversion of starch to sugar.

Follow the guidelines listed above for cooking potatoes. When baking them, pierce the skin with a fork four or five times to let the steam escape. Aluminum baking nails can also be used; they allow steam to escape and will shorten the cooking time. Do not wrap in foil, as this keeps in the moisture and keeps you from serving an attractive mealy potato. Eating the skins of baked potatoes saves the greatest proportion of vitamins, minerals and protein in the potato.

A potato has the same number of calories as a comparably-sized apple. Calories are added only by the amount and kind of toppings used. To cut down calories, blend cottage cheese with garlic powder to taste as a substitute for sour cream, or perhaps add a few teaspoons of instant beef broth for a pleasant new taste.

I hope you will try some of these potato recipes during the coming weeks.

POTATO PANCAKES

¼ cup milk
1 egg
4 cups diced raw potatoes
1 small or medium onion, quartered
3 tablespoons flour
¾ teaspoon salt
½ teaspoon baking powder

Put all ingredients in order listed in 5-cup blender container. Cover and use **mince** setting for about 10 seconds, just until all potatoes go through blades. Do not overblend or potatoes will be liquefied.

Pour small smounts onto a hot, well-greased fry pan. Brown on both sides, turning only once. Makes approximately 15 pancakes. Serve as is, with your favorite jelly or with the following sauce.

SAUCE

6 tablespoons butter or margarine
½ cup flour
¼ teaspoon salt
2 cups milk
½ cup sugar

Melt butter or margarine in saucepan over low heat. Blend in flour and salt. Add milk all at once. Cook quickly, stirring constantly, until mixture thickens and bubbles. When thick, add sugar and stir until dissolved. Less sugar may be added if a more bland sauce is desired. Makes 2 cups.

MARINADED HOT POTATO SALAD

3 lbs. well-scrubbed medium potatoes
1½ teaspoons salt

Marinade
1½ teaspoons salt
1 teaspoon dry mustard
¼ teaspoon pepper
Dash cayenne pepper
⅓ cup cider vinegar
⅔ cup salad oil
½ cup chopped onions

Add salt and just enough boiling water to cover unpeeled potatoes. Cook about 30 minutes, until potatoes are fork-tender but not mushy. While they are cooking, combine marinade ingredients in a 2-cup measure.

Peel warm potatoes; then slice or dice into a large bowl. Pour marinade over warm potatoes and toss. Refrigerate at least two hours or overnight.

Fill 9×13-inch pan with marinaded potatoes. Crumbled bacon bits may be added if you wish. Heat thoroughly in 350° oven for about 30 minutes. Makes 8 to 10 servings.

POTATO SOUP

3 quarts water
5 large potatoes, diced
¼ cup chopped celery
½ teaspoon freshly crushed garlic or garlic powder
½ teaspoon black pepper
2 to 3 teaspoons salt

Cook potatoes and celery for about 30 minutes, or until tender; then add other ingredients. When potatoes are cooked, melt 3 tablespoons butter, add 3 tablespoons flour and brown lightly. (Diced onion may be added and cooked until soft if you wish). Add about a cup of the potato mixture to this sauce and then pour mixture into the soup and cook about 10 minutes longer.

POTATO STUFFING

4 pounds potatoes, peeled
1 cup light cream
1 cup butter or margarine
16 slices dry white bread
2 cups chopped onion
1 cup chopped celery
1 tablespoon salt
1 teaspoon pepper
2 tablespoons chopped parsley
Giblets, cooked and chopped
3 eggs, slightly beaten

Boil potatoes until tender and drain. Heat cream with ⅓ cup butter and whip mixture into potatoes. Cut bread into small cubes, toss in ⅓ cup melted butter and toast in a 350° oven for 5 minutes. Sauté onions and celery in remaining ⅓ cup butter. Remove from heat; stir in seasonings and parsley.

In a very large bowl, mix potatoes, giblets and onion mixture. Stir in beaten eggs, then toasted bread cubes. Fill bird (do not pack), truss and roast as usual. Or spoon stuffing into greased (13×9×2-inch) baking pan and bake covered in moderate oven (350°) for 40 minutes. Uncover and bake 20 minutes longer. Makes 12 to 13 cups.

POTATO CANDY

1 medium potato, cooked and mashed
2 tablespoons flour
2 pounds confectioners' sugar (approx.)

Add flour to potato and mix well. Add sugar to make a creamy, smooth candy. Roll mixture on a lightly floured board. Spread with chunky peanut butter. Roll up and chill; slice to serve.

Other possible fillings are melted sweet chocolate, thick jellies or jams.

Another idea is to make potato fondant by combining the ingredients as directed above and then add any of the flavorings listed below. Wrap tightly in foil or place in plastic bag and let stand overnight unrefrigerated. Shape into balls; flatten with a fork to make a pretty design or use bottom of a glass. Tops can be decorated with frosting or rolled in finely chopped nuts or coconut.

Tutti-frutti Balls – knead flavoring and fruit bits into fondant. Use almond or cherry flavoring and raisins, bits of dates, figs, candied cherries or other candied fruits. Small nut chips can also be added. Use ⅓ cup fruit to 1 cup fondant.

Nut Creams – Knead almond, coffee or maple extract into fondant and add chopped nuts and/or coconut.

Chocolate Creams – Add 1 square melted unsweetened chocolate to 1 cup fondant.

Peanut Butter Creams – Add ¼ cup peanut butter to 1 cup fondant.

Mint Creams – Mix in few drops mint flavoring and tiny pieces of peppermint candy. Fine pieces of other hard candies can also be used.

* Mary Ann Sieczka (Mrs. Joseph) is an instructor for Adult Education evening classes in the CCES Center at Ithaca, New York.



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Peter Pan Scarlet Zinnia

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During the month of March, American Agriculturist and Travel Service Bureau offer you three great early spring vacations, and we hope you will join us for one of them. We have already told you about the Holiday in Colonial Mexico (March 5-20) and the Hawaiian Holiday (March 10-22); now we want to tell you about our tour to the **Sunny Southlands** from **March 7 to 29**. This wonderful three-week trip will be packed with thrills and adventure from the moment we leave until we return.

Our group will gather in New Orleans, arriving there either from New York City or Chicago, whichever place is closer to your home. **New Orleans** is one of our most fascinating cities — a mixture of the old world and the new. We will see the bayous, the French Quarter, the original residential section of the American Colony and much more.

From New Orleans we travel through the Louisiana countryside to **Baton Rouge** with several interesting stops en route. **Natchez,** Mississippi, comes next. Here we will visit Oakley Plantation House, beautiful Rosedown Plantation and Gardens and enjoy a tour of some of the South's finest old mansions.

We spend a night in Beaumont, Texas, and continue to **Houston** where sightseeing will include the NASA Manned Space Craft Center, the San Jacinto Monument, the battleship USS Texas, the outstanding Medical Center at Rice University and, of course, the Astrodome.

The Texas capitol building at **Austin** is typically "Texas-size," second only to the U. S. Capitol in Washington. We will also visit Texas University and the Lyndon Baines Johnson Library. On our way to San Antonio, we stop in Johnson City to see the boyhood home of President Lyndon B. Johnson, before going on to Stonewall, site of the LBJ Ranch.

A sightseeing tour of **San Antonio** will take us to the Old City, the famous Mexican Quarter, Ft. Sam Houston, the beautiful Alamo Botanical Gardens and Brachenridge Park Zoological Gardens. Still in Texas, we pass through an irrigated farming area into a region of canyons and rugged hills. We continue to **Big Bend National Park** and spend a whole day exploring this spectacular Park.

An outstanding highlight of the whole trip is **Carlsbad Caverns**, believed to be the world's largest cave system. Some formations are millions of years old, and one large room is more than 255 feet high. After Carlsbad, we go to **Tombstone**, most famous of Arizona's old mining camps.

On our way to Scottsdale and Phoenix, we visit Saguaro National Monument. Saguaro Cactus grows 25 to 36 feet tall, with some reaching 50 feet in height. We stay in fashionable **Scottsdale** three nights and enjoy seeing its sights and those of nearby **Phoenix**, also Arizona State University at Tempe.

The last two days of our trip we drive along the Apache Trail, seeing the beautiful Superstition Mountains, Tonto National Monument, and the Boyce Thompson Southwestern Arboretum at Superior. On our way to **Flagstaff**, we will also see spectacular Oak Creek Canyon, which many say is rivaled only by the Grand Canyon for beauty and coloring.

This is a very comprehensive tour of our southern states, and we know you will enjoy the warm, sunny weather while March winds are howling through the Northeast. We hope you'll send for the illustrated day-by-day itinerary and decide to come with us.

Other Fine Vacations

Space is still available on our other early 1973 vacations. First comes our **Caribbean Cruise, January 27 through February 9,** aboard the Italian Line's magnificent **Raffaelo**. Ports of call will be Aruba, Barbados, Antigua, Puerto Rico and St. Thomas.

Each place has a charm all its own, and there are many interesting things to see in each port. It's fun to shop in the duty-free stores, and you'll greatly enjoy the wonderfully relaxing atmosphere of life on shipboard.

Dates for our fabulous **South Pacific Paradise Holiday** are **January 21 to March 7**. This is truly a once-in-a-lifetime vacation! We will visit Tahiti, Moorea, New Zealand's North and South Islands, Australia, Fiji, Kingdom of Tonga, Western Samoa and Pago Pago. Spend five weeks in Paradise with us this winter!

From **March 5 to 20**, we will visit

(Continued on page 33)

Gordon Conklin, Editor
Box 370-T
Ithaca, New York 14850

Please send me without obligation on my part, the following tour itineraries:

Sunny Southlands Tour ____ South Pacific Holiday ____
Springtime in Hawaii ____ Colonial Mexico Holiday ____
Caribbean Holiday ____

Name ____

Address ____

____ Zip ____

(Please print)

Two Great New Flowers

Since zinnias and marigolds seem to be the most popular garden flowers in America today, home gardeners will be happy to learn about two new varieties which won All-America awards for 1973. **Peter Pan Scarlet Zinnia** is a silver medal winner, and **Happy Face Marigold** rated a bronze medal.

Peter Pan Scarlet is a beautiful addition to the Peter Pan series of hybrid zinnias. Peter Pan Plum and Peter Pan Pink won All-America gold medals in 1971, scoring higher than any other entries in the 40 years of judging thousands of flowers and vegetables.

Peter Pan Scarlet Zinnia combines large flowers with dwarf plants, a combination which more and more home gardeners find attractive. Individual flowers are well-doubled and measure 3 to 4 inches across. Seldom growing more than a foot high, the first flowers appear when the plants are about 6 inches tall. They remain neat and compact, tolerate rough weather with ease, and cover themselves with blooms. They are superb in a landscape or border planting where they will remain showy all summer.

Happy Face Marigold belongs to a class of hybrid marigolds popularly known as "hedging" marigolds because of their neat, uniform habit of growth. Happy face has deep golden yellow, fully-double flowers which measure up to 4 inches across. The plants grow about 26 inches tall.

Earlier than the Jubilees and more double than Apollo and Moonshot, Happy Face stays colorful from the end of July until frost, branching and rebranching with fresh blooms. It is at its best in a border, but can also be used as a container plant and as a patio accent.

Both Peter Pan Scarlet Zinnia and Happy Face Marigold are easy to grow from seed. For earliest blooms, plants can be started indoors and transplanted to the garden after danger of frost is past. The seed can also be sown in the garden where you want the flowers to bloom.

When you send in your seed order, be sure to include these two award-winning flowers. They will give beautiful color to your garden all summer.

Livestock mart

ANGUS

FOR SALE: Officially, attested, advanced Register Angus bulls, also, Frozen Semen from proven sires. Write today for prices and production data. Wye Plantation, Queenstown, Maryland 21658. Telephones: 301-827-7166; 827-7160.

FOR SALE: REGISTERED Angus cows, heifers, bulls. Top quality at reasonable prices. Emmadine Farm, Poughquag, N.Y. 12570.

BABY CHICKS

MEADOW VIEW CHICKS for 1972. Shaver Leghorns, Harco Sex-Links, Lawton Buffs, Cornish Cross meat birds. Also started pullets. Henry M. Fryer, Greenwich, N.Y. 12834. Phone 518/692-7104.

BUFF SEX-LINK the ideal brown egg layer, Cornish Cross for meat, White Leghorn for white eggs. Top quality at reasonable prices. Write for literature to Parks Poultry Farm, 2367 Parks Road, Cortland, N.Y. 13045.

HI-PRODUCTION LAYERS. "Rugged as a Mule" white egg hybrids and brown egg hybrids. Also top notch White Leghorns, Buff Sex Links and R.I. Reds. For broad-breasted broilers or capons try our premium quality Cornish Super Giants. Free catalog. Noll Farms, Kleinfeltersville, Pa. 17039.

SILVER HALLCROSS CHICKS. Sex-Links, Golden Buffs, Rhode Island Reds, Barred Rocks, White Leghorns. For meat: Heavy White Cross, White Cornish Cross. Write for price list. Hall Brothers Hatchery, Inc., Cook Hill Road, Wallingford, Conn. 06492.

RIDGWAY'S 50TH YEAR - Producing 1st generation chicks. Top laying strains, heavies and Leghorns and Vantress White Rock Cross Broilers. Guineas. Guaranteed delivery. Free circular. Ridgway Hatcheries, LaRue 7, Ohio 43332.

CATTLE HOOF TRIMMING

WRITE TO - Robert E. Annis, Amenia, N.Y. 12501. Phone: 914/373-9078, evenings.

S. L. HANKS, Farrier & Blacksmith, Westfield, N.Y. Call 716/326-2402 or 716/664-7000.

CATS

CATS NEEDED - We pay: $4.00 for 5-plus pounds, $3.00 4-5 pounds. Convert poultry, dairy, etc. by-products into cash. E. Fabry, USDA License #21-BF, PO Box 233, New City, N.Y. 10956. Phone 914/634-7673.

CHAROLAIS

MAR-B CHAROLAIS RANCH featuring LCR bloodline. Registered breeding stock for sale. Mar-B Charolais, Bridgewater, N.Y. 13313. 315/822-5457 or 315/822-5935.

CHAROLAIS PUREBRED COWS, bulls and heifers for sale. Performance records show high weaning weights and grades. Robert B. Hazard, Hidden Falls Farm, Tully, N.Y. 13159. Phone 315/696-5353.

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CHAROLAIS: Fastest weight gaining beef breed. Make excellent crosses with other breeds. Few choice young Purebred Bulls for sale. Every animal P.R.I. tested—Best Bloodlines—Reasonably priced.

DEER HILL FARMS — **CAZENOVIA, N. Y.**
R. James Hubbard, Owner — **Kenneth Nye, Mgr.**

DAIRY CATTLE

COW COMFORT MATS for dairy barns. Priced 35% less comparable products. Save on bedding. All sizes available. For information call or write P & L Belting Co., 7938 Pershing Blvd., Kenosha, Wisc. 53140. Phone 414/-652-3912.

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COW COMFORT RUNNER MATS for free stalls. Priced 35% less comparable products. Save on bedding. All sizes available. For information call or write P & L Belting Co., 7938 Pershing Blvd., Kenosha, Wisc. 53140. Phone 414/652-3912.

DOGS

WORKING BORDER COLLIES - Dairymen it is time to think about workers for next spring. Choose from our fall litters out of top imported females. Sired by Imp. Roy. His pups are proven workers. Sometimes we have started dogs to offer. Also, we have book "The Farmer's Dog", on training and proper handling of the Border Collie, $6.00 postpaid. Call, write or visit Edgar A. Gould, Shelburne Falls, Mass. 01370. Tel. 413/625-6496.

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RIDGWAY'S 50TH YEAR - Producing large White Embdens, White Chinese, and Toulouse goslings. White Pekin, Rouen and Mallard Ducklings. Guineas. Guaranteed delivery. Free circular. Ridgway Hatcheries, Inc., LaRue 7, Ohio 43332.

GOATS

Read DAIRY GOAT JOURNAL. Monthly magazine. How to profit, where to buy. Send $3 for one year. Box 1908, Scottsdale, Arizona 85252.

CENTRAL NY DAIRY Goat Society, Mrs. Carol Reardon, Sec'y. 4516 Stony Brook Road, RD #2, Oneida, N.Y. 13421. Membership $3.00 per year, monthly meetings.

HEREFORDS

HEREFORDS - REGISTERED and Commercial - cows, bulls, and heifers for sale anytime. Coon Mountain Ranch, Whallonsburg, N.Y. 12994. Phone 518/963-4462.



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NEW ENGLAND HOME OF THE POLLED LAMPLIGHTERS
Sires in Service
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Nights (617) 966-1107
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(617) 278-3335

HORSES

APPALOOSA HORSES, all ages, 50 head, sales list. Horse trailers and walkers. WayLo Acres, R.D. #1, Fairmount City, Pa. 16224.

REGISTERED BELGIAN MARE, 4 yr. old--Sorrell by Rowdy Farceur, bred for May, $550.00. Purebred Stud Colt, 6 months old from above mare - Sorrell - white mane, tail, $275.00. Registered Chestnut Belgian Mare, 1700#, 10 yrs. old, by Pen-State Conguerer, bred for April, $550.00. John Howland, East Brook, Walton, N.Y. 13856. 607/865-5413.

HORSE TRAINING

"HOW TO TRAIN HORSES" - Free book tells how to break, train, make money with horses. Beery School, 1641 Pleasant Hill, Ohio 45359.

HOLSTEINS

ATTENTION DAIRY FARMERS
SOLD IN 1972
1000's of outstanding high producing Canadian and Northern registered and grade Holstein dairy cattle
TO
Progressive farmers throughout New York, New Jersey, Pennsylvania, Maryland and all New England States
In 1973 whether you want to buy or sell one animal or an entire herd or whether you want to buy or sell an entire farm, lock, stock and barrel, call or write:
BARMANN & SONS
RD # 4, MIDDLETOWN, N.Y.
Tel. 914-343-6875 or 914-343-8381 Evenings
Over 30 years experience.
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Financing available.
Why don't you join our ever increasing list of satisfied customers.

PEAFOWL

BLUE OR BLACK Shouldered Peafowl $30 pair, Golden Pheasants $12 pair. Ideal gift for the Teenager. Send for list to: Ronnie Laviana, 1684 Chamberlain Highway, Kensington, Conn. 06037.

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500 POUND CALVES at 205 days. Semen from TPS Coronet Catalyst 22nd can make this possible. Virgil D. Braisland, Star Route, Sidney, N.Y. 13838. Phone 607/265-3389.

RABBITS

$500-$1000 MONTH. Plan raising rabbits for us. Free details. White's Rabbitry, AG, Mt. Vernon, Ohio 43050.

RAISE RABBITS SUCCESSFULLY by knowing facts. 48 page illustrated book describing 25 breeds. Housing, breeding, feeding, markets, marketing, etc. 25 cents. American Rabbit Association, 28 ARBA Building, Bloomington, Ill. 61701.

SHEEP

PRACTICAL SHEEPRAISING For Today. Shepherd Magazine, $3.50 year, Sheffield 22, Mass. 01257. Four helpful back issues for $1.00.

STUD RAMS, three Corriedales. Milroy, Bo-Mar kin breeding. Floyd Baird, Spencerport, N.Y. 14559. 716/352-6752.

SHEEP

RAISE SUFFOLKS. Help make 1973 a better profit year with faster maturing winners. National Suffolk Sheep Association, Box 324-RN, Columbia, Missouri 65201.

SHORTHORNS

WANT TO GET in the beef cattle field and make profit? If you do, remember Shorthorns —Polled Shorthorns go to market 30 to 40 days sooner than other breeds. Calves weigh 60-80 lbs. more at weaning. Get the facts. Free. Write Department EB, American Shorthorn Association, 8288 Hascall St., Omaha, Nebraska 68124.

SWINE

BOARS—BRED AND OPEN GILTS. Feed and meat tested. All-American, Championship bloodlines. Big show winners—Champion carcass over all breeds—Eastern National Spring Hog Show 1970—length 31.5 in.; loin eye 6.56 sq. in.; backfat 1.1 in. Champion boar. Champion Gilt, Reserve carcass and Premier Exhibitor Award, Pa. Expo 1970. Test station feed records as low as 2.48 and daily gain as high as 2.38 lbs. per day. Brooks End and Par Kay Farms, Reno H. Thomas, Sales Mgr., Beavertown, Pa. 17813. Phone 717-658-5821.

REGISTERED HAMPSHIRES—Certified meat tested Boars and Gilts. National championship bloodlines. Brooks End and Par Kay Farms, Reno H. Thomas, Beavertown, Pa. Phone 717-658-6714.

NORTHEASTERN OHIO Graded Feeder Pig Sale at Geauga Livestock Comm., Feb. 2, 1973 at Middlefield, Ohio. Phone 216/632-6681. Vet. inspected. Vac. for Erysipelas. Northeast Feeder Pig Assoc., c/o Melvin J. Hershberger, R.D. 2, Box 145, Burton, Ohio 44021.

TURKEYS

RIDGWAY'S 50TH YEAR - Producing Big Bronze, Large White poults, Guineas. Guaranteed delivery. Free circular. Ridgway Hatcheries, LaRue 7, Ohio 43332.

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DAIRY AND LIVESTOCK Veterinary supplies direct to you at wholesale. Send card for new wholesale catalogue. Eastern States Serum Company, 1727 Harden Street, Columbia, South Carolina.

ANCHOR SERUM Animal Health Products by mail. Fast service on mail or phone orders. We stock the full Anchor line that is nationally known and advertised. All orders shipped postpaid. Send for your free catalogs today. Try Anchor's new Somato-Staph Mastitis Vaccine now. Franklin Bros. Farm Supply, your area Anchor Serum Co. Distributor, 1235A Cedarville Road, Easton, Pa. 18042. Phone 215-252-1333.

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Publishing and closing dates

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SELL FERTILIZER SOLUTIONS - Backed by 37 years of research. We install bulk tanks and deliver direct. Growers Chemical Corp., Milan, Ohio 44846. "Our Research is Your Profit!"

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AUCTIONEERS — Livestock and farm auctions. Complete auction and pedigree service available. Harris Wilcox Inc., Bergen, N.Y. 14416. Phone 716/494-1880.

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BUILDINGS

BUILDINGS — 200 sizes. 40x60 - $1700, 54x60 - $1935, 64x96 - $3372. (Catalog 25¢). Strat-O-Span, Gettysburg, Pa. 17325.

ATLANTIC STEEL BUILDINGS. See our ad under "Farm Buildings." We ship buildings anywhere.

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IMPORT-EXPORT OPPORTUNITY, profitable worldwide mail order business from home, without capital or travel abroad. We ship plan for no risk examination. Experience unnecessary. Free report. Mellinger, Dept. G2061, Woodland Hills, California 91364.

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MAKE BIG MONEY FAST: $1,000 in 60 days possible. Easy Taking orders for dwarf, standard fruit trees, roses and ornamentals. H. B. Price earned $7,118.90 first year! Color outfit free! Stark, E10513, Louisiana, Missouri 63353.

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GLORY! MY STORY! Nympholept's Almanac, $1.00 (guaranteed). Bookways, 436A Center, Fort Lee, N.J. 07024.

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CIDER AND WINE PRESSES. New and used. 10-gallon to 15,000-gallon capacity. Complete line of cider mill supplies and repairs for all makes. Write for catalog 72. Day Equipment Corp., 1402 E. Monroe, Goshen, Indiana 46526.

COUNTRY HOMES

MIDDLE-AGED WOMAN wishes to share her home in country in Northeastern Connecticut with same. References. Box 369-CS, Ithaca, N.Y. 14850.

CROWNVETCH

A SENSATIONAL NEW forage legume and landscaping cover. Ask about special introductory offer of seed to livestockmen. Bulletin: Crownvetch As A Forage - 25¢. Crownvetch, Dept. AA, Castile, New York 14427.

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EARN EXCELLENT PROFITS. Sell complete line of farm sanitation products. Write: Metz Sales Co., Martinsburg, Pa. 16662.

EARTHWORMS

FREE PICTURE FOLDER, "How to Make $3,000 Yearly, Sparetime, Raising Earthworms!" Oakhaven-5, Cedar Hill, Texas 75104.

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THE LOW-COST ALL-PURPOSE STEEL BUILDING
A. S. & W. PRODUCTS, INC.
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GLUE LAMINATED RAFTERS AND ARCHES
Send for further information and prices.
BR-13 Unadilla Silo Co., Unadilla, N.Y.

FARM BUILDING MATERIALS

BESTWAY - has in stock for immediate shipment aluminum roofing to 30 ft. lengths, painted steel, technifoam ceilings, pressure treated planks, timber poles, etc. Framing lumber to 26 ft. lengths. Send us your phone number with the material list for quotation. RD3, Cortland, N.Y. 13045, 607/756-7871.

FARMS FOR SALE

FARMS—DAIRY, BEEF, sheep, cash crop, vineyard—all sizes. Business, cottages. J. R. Allen, Realtor, Dundee, N.Y. 607/292-3180.

VIRGINIA LIVESTOCK, DAIRY farms, country estates and residential properties. Specific or ideal requirements needed for reply. No catalog. Browning Real Estate Agency, Box 112, Culpeper, Va. 22701.

FARMS—FINGER LAKES AREA — All types and size farms. Retirement homes — hunting land. Lakeshore properties. H. M. Stocking, Broker, Dundee, New York 14837.

FARMS - STOCKED & EQUIPPED or bare. From farmettes to a 1500 acre farm and everything in between. Example: 300 acre farm, stocked and equipped, brook, lake, 80 head, $50,000+ gross income, $247,500 - terms. Also 370 acre farm, 100 cows, good equipment, $220,000. Many others. Star Realty Co., Route 10, Walton, N.Y. 13856. 607/865-4058.

SOUTHERN PA. - 195 acre dairy with two homes, $158,000. 165 acres for beef or horses, $99,900. 235 acre grain farm, $117,500. 97 acres with excellent buildings, $65,000. Van Cleve Real Estate, New Oxford, Pa. 17350. Phone 717/624-8201.

NORTHERN NEW YORK - operating farm, stocked and equipped. Bare farms and investment properties. JJR Realty, R. Clifford Cook, Farm Specialist, Burke, N.Y. 12917. 518/497-6252.

FARMS FOR SALE

BLACK RIVER VALLEY, Lewis County, N. Y. Main road - 380 acres tillable, 80 acres woodland. 2 farmhouses, 95 freestall barn, 92 stanchion barn, pipeline, 820 gallon tank, 60 stanchion barn - young stock, 20 x 60 Harvestore silo. Price, $105,000.00. Box 126, Castorland, N.Y. 13620. Telephone 315/376-3330.

FORT COVINGTON, N.Y. - 163 acre farm, mostly tillable, 34 Holstein milkers, 2 heifers, machinery, silo, good house and barn. Phone 518/358-4417.

EASTERN SHORE MARYLAND - 360 acre dairy or grain farm for sale. Milking parlor, large shed and barn, concrete lot, fertile soil, running stream, tenant house, beautiful old brick home, good location. Terms. William V. Riggs Jr., Centreville, Md. 21617. Phone 301/758-0859.

400 ACRES FULLY EQUIPPED with 130 milkers, 40 heifers and all machinery, $275,000. 500 acres, 114 tie-ups and hay and silage - $88,000. 200 acres - two houses, overlooking Otsego Lake, $55,000. Call Everett Emery at Alexander Real Estate, Ithaca, N.Y. 14850. Phone 607/272-5530 or 607/564-9055.

A REAL JEWEL - A 100 acre farm with exceptional farm buildings and top location in Madison County between Cooperstown and Hamilton. Has a very nice, completely remodeled nine room home with 1½ baths, oil heat, attached two car garage and hardwood floors. Barn has 40 tie stalls, silo, bulk tank and new machinery shed. Owner asking $88,000 bare and will finance at 6% interest. Registered Holstein herd and equipment also available at $110,000 total. Call Zar Benedict at 914/343-1108 or write Barmann's Realty Sales, Inc. at R.D. #4, Middletown, N.Y. 10940.

550 ACRES - 450 open land - will support 200 milkers, 120 cow freestall, 60 stanchion barn, 800 gallon tank, 2 (30 x 60) silos, 2 houses, drilled well, 2 brooks, deadend lane, Price, $180,000. Petteys Agency, Ft. Ann, New York 12827. 518/793-2212.

1,000 ADIRONDACK ACRES - Lake, 3 streams, woods. Picturesque New York tract with private 14-acre crystal-clear lake plus 3 trout streams! Hundreds of acres of Christmas trees, 140,000 have been planted. 24 x 40 camp with fireplace, 20 x 40 building, barn. On blacktop road, in famed recreation and resort area. Tremendous buy at only $125,000, excellent terms. Free - new 264-page Spring Catalog! Describes and pictures hundreds of farms, ranches, town and country homes, businesses coast to coast! Specify type property and location preferred. United Farm Agency, 501-AA Fifth Ave., New York, N.Y. 10017. Phone 212/687-2623.

290 ACRES HALF TILLAGE, 130 Holsteins, new equipment. Modern buildings, 2 houses. Complete or bare. Also 175 acres, beef cattle or dairy. 4 bedroom ranch, new free stall barn, silo. Owner moved to Florida. Robert Collester, 816 Armory St., Springfield, Mass. 01107.

N.Y. STATE DAIRY, cash crop and combination cash crop and dairy farms, 80 to 1,000 acres, conventional and free stall operations. Complete and bare. Try us. Low taxes, best of schools. Please write giving phone number. Mal-Tut Real Estate, 9 Court St., Auburn, N.Y. 13021. 315/253-3813.

COLUMBIA COUNTY - 170 acre dairy farm, 80 free stalls, new milking parlor, silos, bulk tank, milking and barn equipment included. Shop, new 4 bedroom ranch home, additional acreage available. Asking $155,000.00. Others. Call Milton Meisner, Pres., Davton Realty Inc., Hudson, N.Y. 12534. 518/828-4155 or 518/851-9831.

96 ACRES - $22,500! Fair Haven Bay 2 miles! Pleasant 8-room home, new white siding, bath, oil furnace! Spring, pond! 40' barn with full basement for horses - cattle! Be first! La Rock Realty, Martville, N.Y. 13111. 315/564-5400.

FREE CATALOG. If you're one of many who may regret having deferred buying in the past year, think seriously before deferring it again. Our catalog describes a wide selection of listings, all kinds and sizes, upstate New York and New England. Its descriptions are frank, factual, and easy to read. A few words about special needs may prove helpful. Four Effs, Box 264AA, Manchester, N.H. 03105. (Representatives wanted.)

CAYUGA COUNTY - 230 acre dairy farm, barn for 54, pipeline, 900 gal. tank, 2 silos. Feed. Large house. $60,000. 420 acre dairy, exc. soils. Barn being remodeled for 110 cows. 1300 T. silage storage, bulk tank. 3 houses, exc. water supply. $250,000. Lock, stock and barrel. Ralph Real Estate, 147 Genesee St., Auburn, N.Y. 13021. 315/253-6278.

500 ACRE FREE-STALL, over 250 tillable, 165 head including 120 Holstein milkers, good line machinery, mile good river frontage, new stable with 116 stalls, new double six parlor, new machine shed, two good homes, one six bedroom, one three bedrooms, paved barnyard, good stanchion barn, low taxes, good income. $220,000 complete. If we don't have what you are looking for contact us and we will find it. Brisson Real Estate, RD 2, Massena, N.Y. 13662. 315/764-0896 or 315/769-9387.

MOHAWK VALLEY - Dairy farms in and around the Mohawk Valley. One of the largest selections of farms in this Mohawk Valley area. All sizes, all prices. When farm hunting contact John L. Subik, Realtor, 27 West Main St., Johnstown, New York 12095, or call 518/762-4942 or 518/762-4451.

FARMS - 81 ACRES, 3 greenhouses, seed house, large live stream, barns, modern home, near Rochester, N.Y. 65 acres - all tillable, large barn, on Route 14A near large town, with or without house. 300 acre dairy - 2 houses, large barns, Harvestore silo, milking parlors, 62 free stalls - can handle up to 100 cows. Call and let us know your wants. Stanley Steele, Salesman, phone 1-315/657-6101, or L. E. Corwin, Broker, phone 1-716/254-6908.

460 ACRE LEVEL FARM, 350 tillable, 50 pasture. 87 stanchion pipeline barn, liquid manure, mow conveyor, automatic feeders, 3 silos with unloaders. New machine shed. Attractive 13 room home. $155,000 bare. With 90 cows, 70 heifers and calves, 4 tractors, crawler, latest equipment $250,000. Wimple, Realtors, Sloansville, N.Y. 12160. 518/875-6355. Free lists, state wants.

FARMS FOR SALE

NEW YORK STATE dairy farms, most areas. All sizes, stocked or bare. Tell me your needs. Write Graham Real Estate, Liverpool, N.Y. 13088. Phone 315/457-3380.

FARMS FOR RENT

DAIRY FARM UPSTATE New York - 600 acres. Run own farm. Must invest in own herd and machinery. Modern barn and living quarters on premises. Excellent opportunity. Write Box 369-CR, Ithaca, N.Y. 14850.

FARMS WANTED

BUYERS WAITING! For good dairy farms within 250 miles of New York City. Bare or stocked. We can finance. Also, interested in recreation land, timber or development land. Make your offer now! Our company also buys direct. Barmann's Realty Sales, Inc., R. D. #4, Middletown, New York. Phone 914-343-1108.

WANTED ALL KINDS OF FARMS, vacant land and timber lots. New York and Pennsylvania locations. W. W. Werts, Real Estate, Johnson City, New York 13790.

QUALIFIED BUYERS WAITING - dairy farms, others. Wimple, Realtors, Sloansville, N.Y. 12160. 518/875-6355.

WANTED TO LEASE in 1973, preferably with option to buy, a modern dairy farm in New York State or New England. Write: Box 369-CQ, Ithaca, N.Y. 14850.

WANTED - working or bare farms. Also land. See the New York and Penna. Farm Specialists. Gordon Warner, S. W. Salisbury, Realtor, 5 Forest Hills Blvd., Binghamton, New York 13905.

SMALL ACTIVE DAIRY FARM wanted in New Hampshire, Vermont area. To develop educational (agricultural) and religious conference center. Manager, Unitarian Rowe Camp, Rowe, Mass. 01367. Phone 413/339-8376.

DAIRY FARMS, ACREAGE, country homes. Cash - buyers waiting. Write Graham Real Estate, Liverpool, N.Y. 13088. Phone 315/457-3380.

FLOWERS & BULBS

20 HUGE GLADIOLA BULBS, $5.00. Your choice of pretty yellow, pink or orange blooms. Northgate Farm, Schuylerville, N.Y. 12871. 518/695-3459.

GINSENG

GINSENG GROWS TON acre, worth $25.00 pound - growing details 25¢. Hunting case, watches, movements, bezels. Woods, Box 1079, Lebanon, Missouri 65536.

HAY & STRAW

QUALITY GRADED HAY & Straw, all kinds shipped or trucked anywhere. Desmond Hay Service, Box #666, Spring Lake, N.J. Tel. (201) 449-1888.

HAY FOR SALE - all grades delivered from central New York. When writing give telephone number or call 518/994-5111. Snyder Petroleum, Inc., PPO Box 227, Fort Plain, N.Y. 13339.

ALFALFA-TIMOTHY HAY delivered anywhere. Russell's Hay Service, Box 71, East Durham, N.Y. 12423. Phone 518/634-2591.

WANTED - first or second cut dairy hay, several trailers per week. Bonded dealer, top cash prices, Paley Bros., 3 Brooks Lane, Portland, Conn. 06480. Tel. 203/342-3055.

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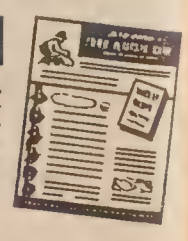
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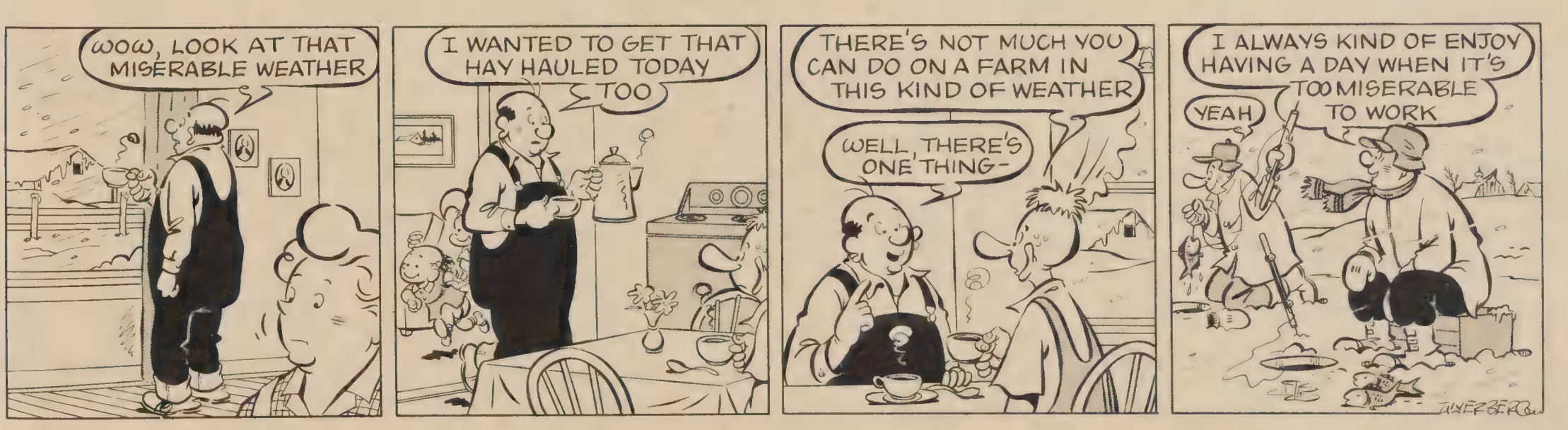
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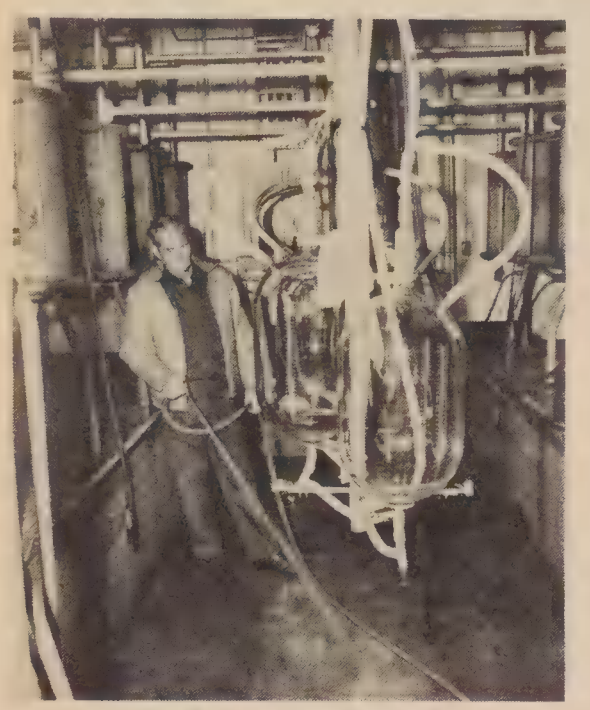
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DAIRY LAGOON

Since the month of June in 1971, James Chamberlain of Walworth, Wayne County, New York has been using a flat-bottomed pond for disposing of water-bearing wastes from his milking parlor and milkroom. "It's worked well for me," Jim reports. "No odors have developed, and it's passed muster every time it's been inspected by a steady stream of health authorities."

Septic tanks have been notoriously inadequate for handling wastes from the milking areas of modern barns . . . wastes all too often plug up the leach fields and create problems. Jim was especially concerned about this possibility because the 60 acres on which the farmstead is located is surrounded by growing residential development.

Houses

To the north is a sizable trailer park . . . many single-family conventional homes are to the south and east . . . and not far away is the site of a proposed "new town" (to be called Gananda), expected to eventually house 80,000 people.

Jim milks 100 cows in a barn designed so that it can be used for some other purpose should urban encroachment someday engulf the farm. Near the barn is a 1,500-gallon settling tank . . . which is periodically pumped out . . . that takes manure and any other solids from the liquid on its way to the lagoon. The toilet at the barn does **not** discharge into the lagoon system.

No surface-water runoff can get into the lagoon, and Jim reports that evaporation has prevented its contents from reaching its design depth of four feet . . . in spite of the 500 to 600 gallons of effluent entering it daily. A four-inch pipe connects the lagoon and settling tank. Total cost of building the lagoon was $3,500 . . . all work was done by a contractor.

Rents Land

Jim rents 300 more acres to go with his 60 acres . . . travels 10 miles away to the farthest land. He buys all herd replacements as first-calf heifers, and uses two bulls as "cow fresheners" in a system where no calves are raised. Cows never go outside of the free-stall barn until they're culled.

The loafing and feeding areas feature two floodlights turned on at all times . . . and a radio playing music 24 hours a day. "That music seems to tranquilize 'em," Jim reports. "No strange noise ever seems to upset them now . . . which wasn't always the case before."

Jim believes his lagoon was the first of its type built in New York State . . . and he has found it to be completely adequate. — *G.L.C.*

CASH CROPPER

Eugene Gillis operates a sizable farm business in an area that is rapidly being urbanized near Victor, New York. He owns some acreage, but rents 1,000 more acres! Major crops include corn (550 acres), red beans (200 acres) . . . plus wheat, hay, and oats.

Non-farm landowners in this area, as is true all over the Northeast, are willing to rent land to operating farmers at reasonable rates. "Cropland rents in this area for just about what real-estate taxes cost," comments Gene. "Annual taxes are about $12 to $14 per acre, and land rents in the $10 – $15 range per acre."

At first glance, hay might seem to be a low-profit crop . . . but there are lots of pleasure horse owners in the area willing to purchase both hay and straw by the bale. Corn is the big volume cash crop on the Gillis spread, though.

Gene plants all the corn himself, using a four-row planter. Bulk fertilizer is augered from a farm truck directly into the planter . . . applied at the rate of 200 pounds of 10-20-20. The rest of the fertilizer is bulk-spread ahead of plowing. In 1972, nitrogen leached badly because of excessive rain, so 80 units of nitrogen were applied per acre (anhydrous) on 100 acres of the crop.

A combination of AAtrex and Lasso was applied at planting time . . . in previous years, Gene had used AAtrex and oil when corn was 4 to 5 inches high. This practice over the years had allowed yellow foxtail to get rolling, though . . . something the Lasso can be expected to correct.

"We're sure lucky that we didn't have to try to spray corn after it was up in '72," Gene comments. "It was so wet that the job would have been impossible."

Moisture

When corn has dried to a moisture content below 30 percent, Gene starts harvest. Next stop is an on-the-farm continuous-flow dryer fired with **natural gas** (one advantage of living in an urbanizing area). It can dry 80 bushels an hour of corn starting at 30 percent moisture. There is storage space for 20,000 bushels of shelled corn at the farmstead.

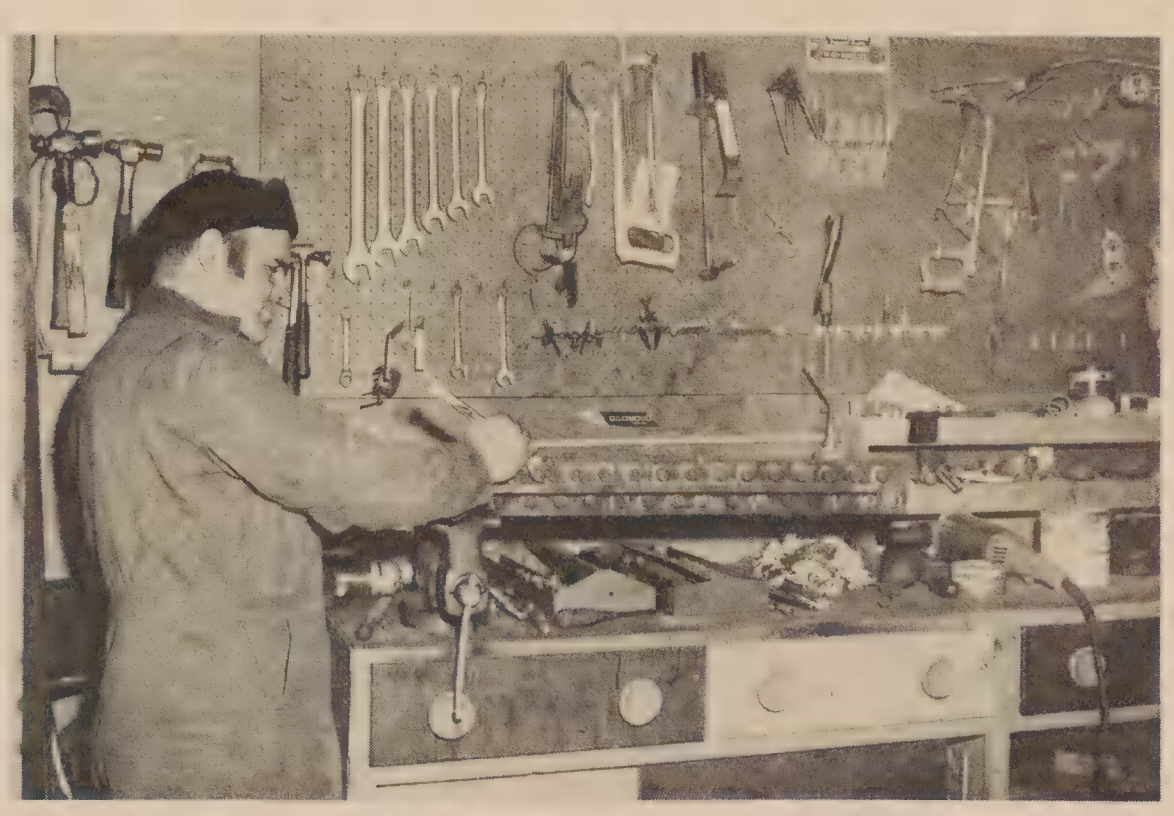
The labor force here (in addition to Gene) consists of one full-time employee, plus several part-time workers. By New Year's Day, the corn harvest is usually completed . . . but there is plenty of work to do.

A well-equipped (and heated) machine shop at the farm makes possible equipment repair and maintenance all the way from a spark plug change to a major overhaul. Besides, work on the maple syrup business begins in January with tapping . . . and plastic lines are not connected until sap really begins to run considerably later. Gene made 2,600 taps in 1972.

Starts Early

"I start out in January with a battery-powered tapper," Gene reports, "do about 100 taps a day, and hook up the droplines. Later in the season, I use a gasoline-powered tapper . . . which is much faster. A snowmobile is handy for tapping . . . I can pull 100 sap buckets on a sled behind my snowmobile with a tread 17½ inches wide." About one-half of the taps were hung with buckets, the rest were served by plastic tubing. "We went to a closed system on most of the tubing last year," Gene comments, "with just a natural vacuum . . . no pump. It worked well for us."

Sap is boiled, usually beginning about March 1, in an oil-fired evaporator (5×14 feet), finished in a pan (2×6 feet) fired with bottled gas. The crop in 1972 amounted to 900 gallons. — *G.L.C.*



Eugene Gillis in his fully equipped and heated farm shop.

CHOPPED DRY HAY

Michael (Jay) Jewert operates a 44-cow dairy farm located on Route 16 just south of Chaffee (Erie County), New York. His father, Martin, operated it in years past, and still helps do some farm work.

One of the earliest free-stall barns in the Northeast was built here in 1961, after a barn fire had destroyed the previous loose-housing structure. The Jewerts have been pleased with the free-stall setup ever since. In recent years, the DHIC herd average has been 16,000 to 17,000 pounds of milk per cow.

There is no hay baler on this 212-acre farm . . . the field chopper harvests all roughage, including dry hay. In fact, chopped dry hay has been put up here since the early 50's. Chopped hay is also used for bedding . . . and the chopper, of course, harvests corn for silage.

This economy in equipment inventory is evidenced in other items . . . the 22-year-old tractor used to clean up the free-stall area, for instance. A program of preventive maintenance . . . along with careful handling of machinery . . . are keys to unusually low machinery cost per unit of milk produced. — *G.L.C.*

VACATIONS POSSIBLE

Just south of Palmyra, on Garnsey Road, is a dairy operation called K-Way Farms. Brothers Frank and John Koeberle milk 100 cows here . . . 72 housed in stanchions, and 28 in free stalls. All are milked in a milking parlor.

"When our father, Edwin, came here in 1954, he had 8 cows and 40 acres," Frank comments. Gradual growth over the years since has enlarged the barn . . . and the acreage (330 acres owned, 290 rented).

Those years have also seen the erection of three Harvestore silos . . . a 20×50 and a 20×60 primarily for storing haylage, and a 20×27 for high-moisture shelled corn. Corn silage is stored in a concrete-floored trench silo having a capacity of 1,000 tons, and costing $1,500 to have built.

Profitable

"Milk and meat are the most profitable ways to sell our farm crops," John comments. The Koeberles have, in addition to the dairy, 20 beef-type cows (Angus and Charolais) . . . as well as fattening dairy steers on roughage and high-moisture shelled corn (HMSC).

The HMSC is also the basic component of the grain ration for the dairy herd, but a 24-percent-protein pelleted ration is also fed, according to production, in the milking parlor. In 1972, wet weather and generally unfavorable crop conditions forced the Koeberles to put all their 245 acres of corn into ensilage . . . but normally they would have had enough for silage and HMSC to meet their needs.

Building

Frank and John have done much of the building work themselves as the farmstead structures have grown over the years . . . including a new house for John. However, the recent-

(Continued on next page)

ly-added truss-rafter machinery storage (50×100 feet) was built by a contractor.

They also built their own camper that fits on a farm truck for family vacations. Each brother and his family take at least one week off each year for travel . . . to Nova Scotia, the Great Smoky Mountains, etc.

John comments, "We thought at one time . . . like many other farmers . . . that we just couldn't get away, but we found it is possible. Furthermore, we think it does us a world of good!" — *G.L.C.*

FAMILY HELP

Leandre ("Curly") and Lorraine Audet operate a dairy farm near Orwell, Vermont. They have nine children . . . five boys and four girls . . . and four of the boys are interested in farming. The youngest boy, Brian, is in the 9th grade in high school.

The Audets own the home farm of 250 acres, and another 150-acre farm 11 miles away. At present, there are 89 cows in the operation, stabled in a stanchion barn.

Plunge

Knowing that four of his sons are interested in farming, Leandre recently took the plunge and bought a 605-acre farm a mile up the road from the home farm. "At present prices," he comments, "this was no casual decision. The capital required by modern farming scares me at times!"

The Audets like hay for making milk . . . they put in 15,000 bales in 1972. "It was the poorest hay we ever put up in all the years we've been farming," Leandre comments. Even so, there were 7,000 bales that didn't get wet . . . some kind of a record for the wettest summer northeastern farmers can remember.

This is fall-plowing country, where the heavy clay soils of the Champlain Valley need frost action to break up soil particles. They're not "sour," though, and typically the Audets need apply only a ton of limestone per acre the year before the field is seeded.

At Lake Home Farm, sawdust and wood shavings are used for bedding . . . no straw for the last two years. "We like rubber mats on the cow beds," Leandre comments. "They require less bedding . . . which seems to get scarcer all the time . . . and cows are more comfortable on them." Happy they must be . . . a recent DHIC report shows a herd average of 14,983 pounds of milk, 553 of fat.

How do young men get started in farming? There are several ways . . . and the Audets are involved in one of the more usual routes. Family help . . . including capital and management counsel . . . is one of the most valuable assets a young farmer can have. — *G.L.C.*

South . . . . .

(Continued from page 28)

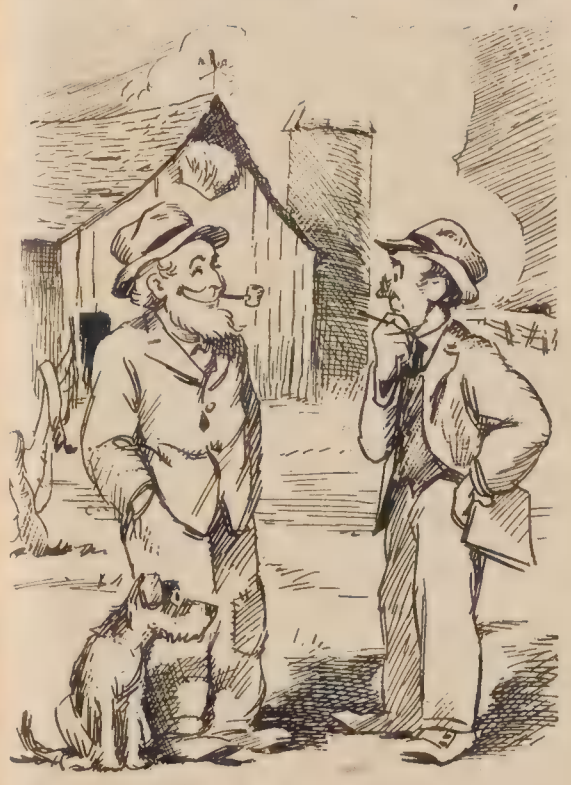
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The Song of the Lazy Farmer

For years I've thought the folks who take opinion polls were mostly fake, because they'd never questioned me and no one else that I could see. I've been right here most ev'ry day and always glad to have my say, but no poll man's been smart enough to give me chance to strut my stuff. This oversight, of course, explains why polls have had such growing pains; no one can find out what is so unless he asks the folks who know. However scientific he attempts to make his survey be, his poll's results will never do unless he talks to me and you.

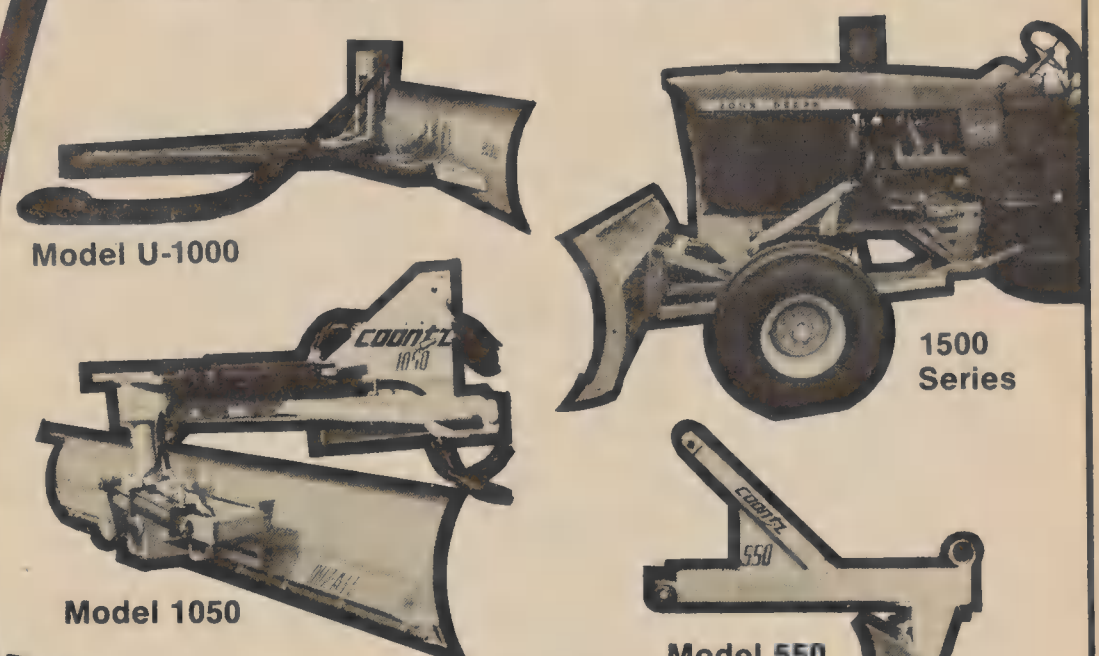


Today, at last, a pollster came, but it turned out to be the same because, right off, he asked my view on what the government should do, but after I had spent an hour upon my answer, he looked sour and put a little check mark there inside the "undecided" square. That leaves me right where I began, I don't see how a feller can expect to find out much at all when he has so much nerve and gall that he won't try to analyze an answer that's both right and wise. If that's how he treats all smart men, his poll's sure to be wrong again.

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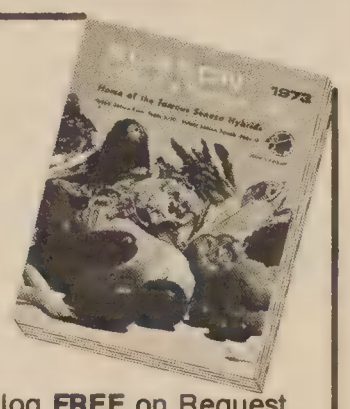
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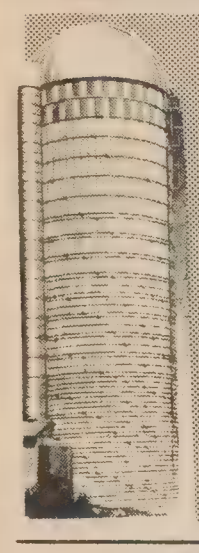
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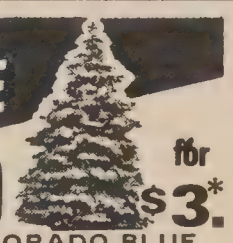


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THE OTHER SIDE

In regard to your editorial "No Smell," let me tell you about the "other side of the fence."

I have lived for 17 years in a farming and residential area, which became zoned a few years ago. There are rules and regulations everyone must follow living in a zoned area, all except one as I'm beginning to find out. We live near a farmer who rents a piece of land (between 12-15 acres) which borders our land. It seems to me after talking to him, and to the owner, that something might be done. As of this writing, it hasn't!

Phew!

During the hot summer months from June to September, he spreads raw manure and garbage 15 feet from our property line in an area of a 25-foot circle. He does this about three times a week all summer long except when he cuts the grass for hay . . . then it starts all over again. This is in one spot only . . . never on the complete acreage.

The smell is unbearable, and the amount of flies it draws is unbelievable. The smell penetrates everything, so all the windows and doors must be closed, even at night . . . no matter how hot it is. This doesn't help my youngest son, who has bronchial asthma.

After seeing the spreading of raw manure and garbage one day, I went out to look it over and among the manure and garbage were a stillborn calf and dead chickens.

Now in the winter time, he manages to spread manure on his own property . . . across the Penn-Central tracks, away from where we live. If he would only reverse the spreading . . . in the winter in the lot next to ours, and in the summer, across the Penn-Central tracks!

This would solve the problem, but the proposal falls on deaf ears. If this farmer isn't breaking any laws, I know he is causing a health problem and contaminating the area. — *A Rural Resident, Frankfort, New York.*

NEEDS DDT

I am a Christmas tree grower, and have had severe damage caused by the gypsy moth. By the time I noticed the damage, the larvae were fairly mature.

I sprayed the trees with lindane, but it failed to kill the larvae. The State sprayed a nearby recreational area about the same time with Sevin, but the results were also negative.

We are now trying to have legislation enacted that will permit us to purchase and use DDT as a ground spray for Christmas trees. The ban on DDT is scheduled to become effective December 31, 1972.

However, the ruling is now being contested in court. Unless we are permitted to use it . . . or they come up with something better than they now suggest we should use . . . we are going to have extremely heavy losses. — *Herbert Griesemer, New Ringgold, Pennsylvania.*

SMALL DAMS

Regarding your editorial on dams and flood control, we in the Unadilla Valley have had time over the years to think about and study this problem. We were threatened with the construction of a large dam back about twenty years ago, and it is still not a completely dead issue.

Those who appreciate agriculture naturally oppose the construction of large dams that would inundate fertile valley land. Those who are concerned only with flood protection may not care how they get it as long as they get it.

Importance

Considering the great value and importance to the country of fertile soil, it would seem reasonable to approach this matter by using all the techniques to retard runoff in the watershed . . . before resorting to the destructive large dam that takes so much productive valley land.

The work in the watershed might involve reforestation, diversions, small and medium-size dams on poor land, and agricultural practices intended to slow runoff and build up the water table. These practices would not only reduce flows in the main streams, but benefit the smaller streams and the surrounding area up in the watershed.

In conjunction with local protections and flood-plain planning in the urban areas, much can be accomplished to the benefit of all . . . both upstream and downstream.

However, in order to get the best plan for all concerned, there must be leadership with a broad understanding of the complete problem, not just one philosophy of flood control. — *E. J. Beckert, Jr., South New Berlin, New York.*

Survival . . . . .

(Continued from page 24)

dizing a nation officially committed to cheap food. Our story is not being told. On the contrary, only a distorted version of our lives and work has been fed to the public. This we seek to correct.

"We will pursue every avenue to insure the survival of agriculture as a way of life: legislation, especially in the area of marketing; public relations, informing ourselves on every aspect of our industry; and unifying farmers . . . to name a few. We are defending our way of life."

It's obvious from their comments that these women would prefer not to go back to the picket lines again . . . but equally obvious that they would if they felt the wall at their backs once more. They'll have a booth at the Horticultural Show in Rochester (January 24 and 25) to explain the organization's objectives to a broader audience.

As one observer of the passing parade, I'm betting that these gals will make a lasting impact on the course of future farm bargaining! — *G.L.C.*

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WE CAN GET IT FOR YOU . . .

Nearly ten years ago, we carried a report on the conviction of four corporations and their principal owners on charges of mail fraud and conspiracy. The two "buyers' clubs" and two "supply houses" were charged with bilking 100,000 members of more than a million dollars in membership fees.

People paid fees in the belief that they could buy over 20,000 nationally-advertised products at factory prices. Postal inspectors reported that more than 3,600,000 letters soliciting memberships were sent through the mails, and that there were complaints with three out of every four orders placed.

In spite of such setbacks, this type of operation continues. READER SERVICE files contain quite a few fat folders holding correspondence with readers who have had problems with companies that offer to supply merchandise at factory prices.

Because authorities watch such firms, somewhere in their literature will be found mention of a handling charge of around 6 percent. Cost of an item may also include freight charges. Authorities urge buyers to check prices quoted with local retail prices. Buyers may find they can get items at just as low prices close to home — and they will be sure of getting them.

One firm currently soliciting memberships shows the same prices for selected items as it showed two years ago. In fact, the literature is identical, and the membership fee is still $3.00. Another outfit offers savings up to 60 percent for a yearly $6.00 fee.

Parent firms may have several subsidiaries, and the same principals have been known to be involved in more than one such group.

A year ago, we carried a report of a restraining order secured by New York State Attorney General Lefkowitz against Unity Buying Service. At last report, the firm was still operating under the Final Judgment secured in New York County Supreme Court.

We now have before us literature from yet another buyers' service. So . . . . . we'll start another folder and hope that our subscribers will not find themselves eventually having to file claims with bankruptcy referees as a result of dealing with this and other such clubs and services.

RURAL PROTECTION FACTOR

A Pennsylvania reader recently discovered that the New York State Department of Agriculture and Markets could not help him to collect for eggs sold to a licensed New York State dealer. It only has jurisdiction when produce originates within the state.

A New York State onion grower is having trouble collecting from an unlicensed dealer who lives in the same county. Although the dealer is under order not to purchase farm products within the state, the order was not in effect at the time of the onion deal.

In some cases, the U. S. Department of Agriculture may have jurisdiction under the Perishable Agriculture Commodities Act if it can be proved that the dealer moved the produce into interstate commerce.

The Department of Agriculture and Markets urges state growers to do business only with licensed and bonded dealers or commission men. If a buyer cannot produce proof that he is licensed, call the department (518-457-4990) any weekday between 8:30 and 4:30.

If you discover too late that a buyer is not licensed, the department wants to know about any problems. It can attempt to obtain compliance and possibly secure payment.

Violation of the state licensing and bonding law is a misdemeanor. The Department of Agriculture and Markets may seek a penalty or may apply to the courts for an injunction to restrain further violations.

Local district attorneys may prosecute violators when cases are brought to their attention, or the farmer himself may institute civil action.

To be effective, the department needs full cooperation from farmers who have done business with buyers under investigation. Some farmers will not admit dealing with such buyers until they run into trouble.

Triple amputee Richard Farr, Colts Neck, N.J. (on tractor) visits with George Ellingham, N.J. agent. Sharing his experience, Mr. Farr wrote this letter:



North American Accident Insurance Company
Ithaca, New York

Dear Sirs:

For many years I have read in American Agriculturist where so many rural people were paid claims by your company for their unfortunate accidents. Needless to say, I never thought my name would be among them.

The sole purpose of my letter is the hope that it will help those who have or might lose one or more of their limbs. As of a year ago I became a triple amputee. While picking corn my right hand became caught. This was certainly bad enough but while trying to free my hand, my one foot and then the other were drawn into the machine. After one hour and forty minutes being extracted, the end result was the loss of my right arm and both legs.

This is where faith and determination enter the picture. After several weeks in the hospital and being fitted with three artificial limbs the burden would now be mine to get going again. Schedules were made to accomplish certain things in specific time limits. With the help of my wife, "Val", my family, and many friends my routine is almost back to normal. Driving the tractor, riding my horse and training bird dogs for field trials are just a few of the things.

Sure, this is a tough one to beat. It can be done and will be done. To anyone who meets with a similar accident I say, just go ahead and do it, and you will do it.

Sincerely,

Richard Farr

NORTH AMERICAN ACCIDENT INSURANCE COMPANY
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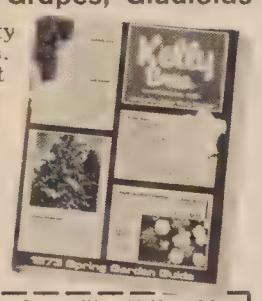
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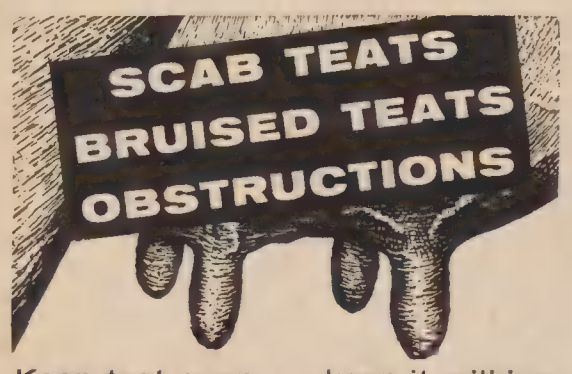
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3816 W. Lawrence Ave., Chicago, Illinois 60625

Dollar Guide

For The Northeast Farmer

MILK PRODUCTION in U.S. up 2 percent in first 10 months of 1972 as compared to same period in 1971. Class I price to farmers in NY-NJ federal order will be $7.72/cwt. in January ... 39¢/cwt. above January 1972.

Per capita consumption of all dairy products (in milk equivalent) is predicted to increase in 1973 for first time since mid-1950's.

EGG PRICES at the farm have finally risen above the ruinous levels of the last two years ... the trade expects first-quarter prices to farmers at least 3 to 6 cents above the Jan.-March 1972 average.

FEED GRAIN PRICES will be on the high side through at least next harvest season. World grain shortage has brought foreign countries to U.S. seeking to buy ... and terrible harvest conditions in this country have caused large field losses of corn and soybeans.

MANURE PONDS ... three of them ... have been built in Addison County, Vermont. County agent reports a storage for the manure from 200 cows for 200 days costs about $3,000. Such ponds can be cost-shared by the government through REAP.

HOG CHOLERA flags fly in New Jersey and Pennsylvania. Garden State authorities have partially lifted statewide quarantine, but Pennsylvania has temporarily banned all movement of swine in that state.

BEEF PRICES are expected to climb again by late next spring and early summer. Look for increased consumer yelling over retail meat prices ... but no government control over at-farm prices.

APPLE GROWERS can obtain a free copy of "Apple Marketing Study: A Team Report" by writing: Office of Information, USDA, Washington, D.C. 20250. It summarizes a series of meetings (sponsored by the USDA) of fruit industry members across the U.S.

CALVING INTERVAL should be 12.5 months for a dairy cow, according to DHIA records, but U.S. average is 13.5 months. Dairy specialists calculate that there is a $33-per-cow difference in profit between the two intervals.

MILK PROMOTION referendum will be held in Pennsylvania January 12-26. Milk cooperatives can bloc vote, but votes by individual producers will be deducted from that bloc vote.

FEDERAL FARM LEGISLATION is an "iffy" thing in new Congress. Last election made its makeup even more urban ... one-sixth of House members will be new. Best bet is that administration will try to extend 1970 Farm Act with only a few changes.

GROWTH STIMULANT (DES) is banned from cattle feed as of January 1. Implants of DES or Zeranol are still legal, however.

Virginia Tech researchers report increase in rate of gain of 10 percent from implanted Zeranol.

ALFALFA is a surface feeder for potassium (K), report Wisconsin researchers. Deep-placed K not readily available to plant - topdressing after first cutting still best bet.

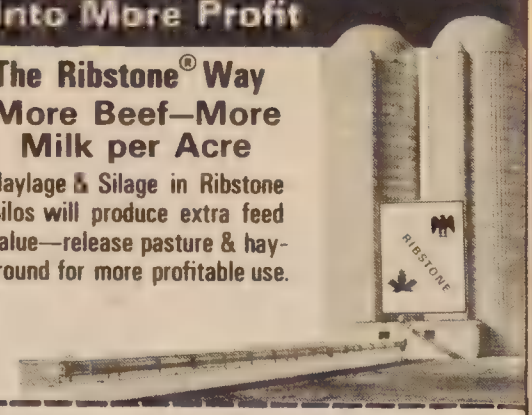
Properly located barriers of trees and shrubs can reduce noise by as much as 50 percent. In combination with grass, trees can cut down sound levels by 65 percent when used to divide or surround large hard-surfaced areas.

Trees are about equal in their ability to cut traffic noise. But for obvious reasons, evergreens are best on a year-round basis.

S-T-R-E-T-C-H Your Present Acres Into More Profit

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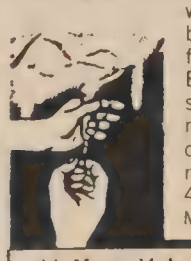
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MOVING?

LET US KNOW

American Agriculturist and the RURAL NEW YORKER

(Left to right:) Robert and Bill Titus. Agway free-stall barn in background was built in two sections and Agway silos added one at a time to meet their needs for expansion.

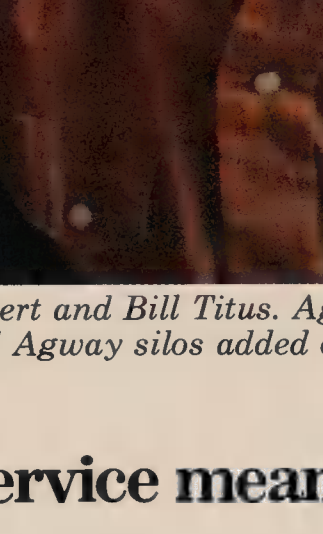
"$98 additional profit per cow, per year. That's what Agway Dairy Enterprise Service means to us!"

Robert and Bill Titus, father-and-son partnership, farm 140 acres near Windsor, N.Y. They crop about 90 acres, with another 50 in improved pasture. Their herd averages 126 cows, with 62 milking. It wasn't always that way. As Robert Titus puts it:

"When Bill came into the operation, it was obvious that we had to begin making more milk from the same number of acres. One of our first moves was to switch to free-stall barns and a milking parlor. Agway helped us all along the way . . . with designs and building. And they helped us get credit for our first free-stall barn."

"What the new barns and parlor really meant," adds Bill, "is that we could double the size of our herd without doubling the labor."

"Sounds simple," says Robert, "but another big move was to put our cows on Agway Liquid Protein Supplement, fed free choice. When we saw how much LPS they were consuming, we started talking to Enterprise Salesman Tom Redmond about our whole feeding program. And that's how we got onto the Agway Total Dairy Ration Profile.



Tom Redmond, Agway Dairy Enterprise Salesman, works closely with the Tituses on every phase of their expansion program.

"After a few months, things really started happening. First thing we noticed was that our fresh cows were peaking earlier . . . and higher."

"And they've been sustaining longer," continues Bill. "As of now, we're getting an extra $98 per cow per year, income over feed costs—and this is clear profit."

Agway Dairy Enterprise Service is the blending of a farmer's resources with Agway resources in the best combination to increase profit for the farmer who wants to get the most from his management effort.

Why not find out what it can all mean to you? Call Agway today.

Farm Enterprise Service AGWAY

AGWAY FARM ENTERPRISE SERVICE

Here are 7 ways Agway can help you cut costs and increase dairy profits.

Have you overlooked any of them?

1 How much will the Agway Total Dairy Ration (TDR) Profile increase your net income over feed costs?

Agway recently reported a TDR test involving 338 Holsteins in 14 dairy herds. Results showed that a program based on a TDR Profile increased milk production by 500 pounds per cow, per year. At the same time, feed costs were decreased and net income increased by $65 per cow, per year.

Since the test was run, reports from the field indicate that even more substantial gains may be made. In the case of a dairy farm near Windsor, N.Y., for example (see preceding page), a TDR Profile Program increased net income by $98 per cow, per year.

The point is that TDR works. And it will work for you.

How does TDR work?

The Agway TDR Profile is a computer program that picks the right combination of forage, grain and Agway Ratio:Right Feed to satisfy your cows' nutrient requirements for maintenance and to build towards top milk production. The program begins with an analysis of your forage by the Agway forage-testing service. It then considers the total protein, energy, calcium/phosphorus ratio and fiber needs of your cows plus the forage-to-grain ratio. Finally, it weighs the needs of your herd against your forage/grain input. From that point it can be determined how best to utilize your forage and grain to achieve top income over feed costs.

TDR can pay off for you whether you use manufactured feeds or grist. First, consider manufactured feeds.

2 If you use manufactured feeds, Agway Ratio:Right Feeds and Concentrates offer a new way to save feed dollars and maintain herd health.

Ratio:Right designates a line of feeds in which the *ratio* of energy to protein has been carefully selected to balance the feedstuffs produced on Northeastern dairy farms.

Ratio:Right Feeds offer the assurance of meeting both the energy and protein requirements of your herd, with no wasteful and dangerous overages or unproductive and equally dangerous shortages. With Ratio:Right Feeds, your herd gets only the protein and energy needed to balance your forage/grain program, and to maintain top production.

Your Agway Dairy Enterprise Salesman will help you choose the proper Ratio:Right Feed for your herd. Ratio:Right Feeds are available with energy:protein ratios ranging from 0.7 to 7.3. There's one that will closely fit any forage/grain program in the Northeast—including *yours.*

Of course, you may grow your own grain and feed grist rather than manufactured feeds. If that's the case, the Agway Optimum Grist Formulation Program is made to order for you. Let's see how it works.

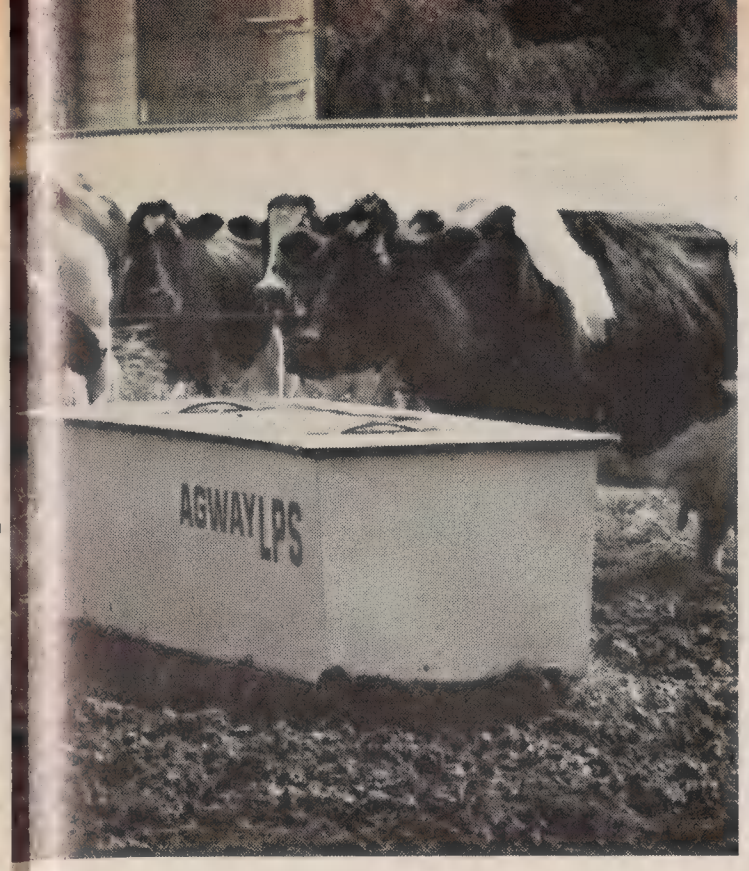


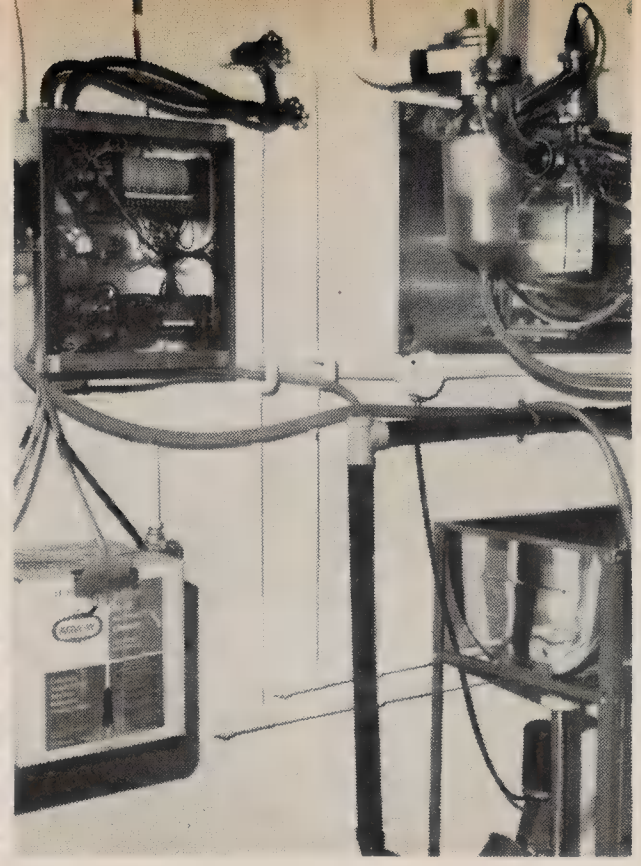
3 If you feed grist, the Optimum Grist Formulation Program is your best way to lowest feed costs and highest production.

This program starts with your grain as a base. Then, by computer, it considers how to add Agway Ratio:Right Concentrates, along with molasses and minerals, to formulate the least-cost dairy ration you can use to realize top production and profits from your herd. It assures you that this ration meets all your herd's requirements for protein, energy, fat, fiber, calcium and phosphorus. And it does it all without laborious and time-consuming calculations on your part.

Here's how the program works for you: Your Agway Dairy Enterprise Salesman helps you establish the nutritional specifications you want from your grist. These, along with current prices and maximum and minimum levels for grain, concentrates, minerals and molasses, are run through a computer. The results will indicate the best way for you to use your grain for maximum returns. It's now a simple matter for Agway to produce a grist that's tailor-made to meet your herd's needs for maintenance and top production.

Of course, rations which are calculated to be adequate may not in fact be so, because of insufficient consumption. The least-cost way to make sure your cows are getting enough protein to achieve and sustain good production is to feed Agway Liquid Protein Supplement (LPS) free choice.





1972-73 STORAGE DISCOUNTS		
Period	Per unit discount N-P-K ammoniated grades.	Per lb., blends spread on the land.
December 18-January 20	8¢	.4¢
January 22-February 24	6¢	.3¢

4 LPS—low-cost protein assurance to protect production and profits.

LPS is the most economical way to assure your cows the protein they need to attain and sustain top milk production. And it has been demonstrated that cows will *increase* their consumption of LPS when available protein provided by feed is below their needs, and will *decrease* consumption when protein is adequate. Fed free-choice, LPS is a reliable indicator of just how closely your feed matches your cows' protein needs. If consumption of LPS by lactating cows is heavy, your whole feeding program should be re-evaluated.

In addition to protein, LPS supplies phosphorus, vitamins and trace minerals essential to health, condition and high milk production during the winter months. As mentioned, it's preferably fed free-choice, but it's also useful as a top-dressing on low- or medium-quality hay. LPS not only increases the nutritional value of the hay, but also makes the hay more palatable to encourage greater consumption.

5 Making more milk is one route to higher profits. Maintaining top-quality milk is another.

Obviously, the size of your milk checks depends on the quality as well as the quantity of your milk. And when you have the Agway Guardian Milk Program going for you, you can be sure the milk from your bulk tank retains all the quality of the milk your cows produce.

The program includes a complete line of bactericides and sanitizers with the right combination of products for each job. And the program includes the equipment you need to do the job as quickly and efficiently as possible. A centralized control station, for instance, that automatically cleans your milking equipment and bulk tank while you do something more profitable. And along with the best chemicals and equipment, Agway gives you all the information you need to use them to the best effect. Count on Agway to help you solve any problem that stands between you and a low bacteria count.

If you'd like to know more about the Agway Guardian Milk Program and how it can help you, Agway can fill in the details.

6 Don't overlook the savings in buying and storing fertilizer now.

Agway fertilizer plants simply don't have enough room to store all the fertilizer that will be needed in your area next spring. So Agway will pay you to store what you'll be needing on your own farm. If you order before February 24 for immediate delivery, you save 6¢ per unit. A 6-24-24 fertilizer, for example, adds up to 54 units of plant food, or a saving of $3.24 per ton. (Discounts apply to bagged and bulk ammoniated grades and to blends spread on the land.) And you don't have to pay for it until April 2, 1973.

In addition, the fertilizer you store on your farm through June 30 will be replaced if lost due to fire or to water used in fighting fire. As another bonus, you're sure of having the fertilizer you need on hand when you need it.

For the current discount, figure your requirements now and place your order before February 24. Your Agway Enterprise Salesman will be happy to help you determine your needs. And while you're at it, why not ask him to review your whole crop management program for '73?



7 The right decisions made now can improve your crop yields in '73.

A kitchen conference with your Agway Dairy Enterprise Salesman now could clarify your own thinking and pay off in more productive use of your land, your time and your investment next year.

For example, should you expand your acreage of Saranac and Iroquois alfalfa? What are advantages of direct seeding? Do your soil tests show that you need lime? And what about P & K? Should you apply Nitan solution nitrogen? Corn starter at planting time? Any bad weed problems this past year? What are you going to do about them next year?

Talking to your Enterprise Salesman now can bring up some important questions that could lead to important decisions before it's too late. And with your Enterprise Salesman at your elbow, you can take advantage of the newest technical data, the least-cost route to maximum yields, the latest facts on discounts. You can schedule spreading services well in advance.

To set up such a conference, just call Agway.

Agway
Farm Enterprise
Service
can help you
increase
your profits.

Call Agway
any time.

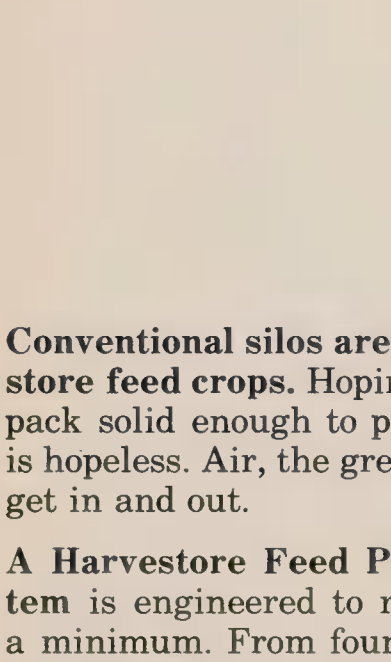
AGWAY

This is not a silo!

Conventional silos are only a place to store feed crops. Hoping wet feed will pack solid enough to prevent spoilage is hopeless. Air, the great spoiler, does get in and out.

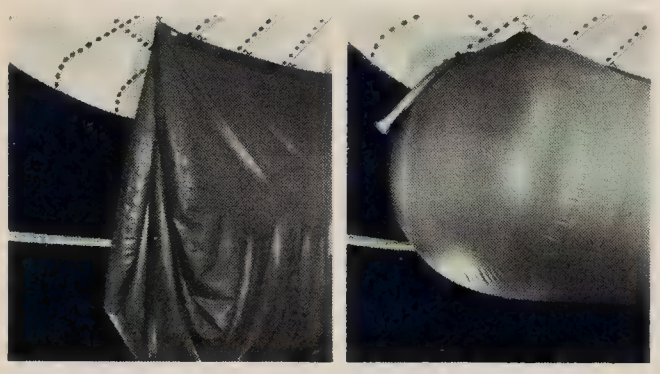
A Harvestore Feed Processing System is engineered to reduce losses to a minimum. From foundation to filler hatch, exclusive features protect your feed.

For 25 years, in over 30,000 structures, Harvestore glass-fused-to-steel construction has proved itself. It is non-porous, non-corrosive and resistant to acid, abrasives and weather.



All overlapping joints are sealed with a long-lasting, pliable compound.

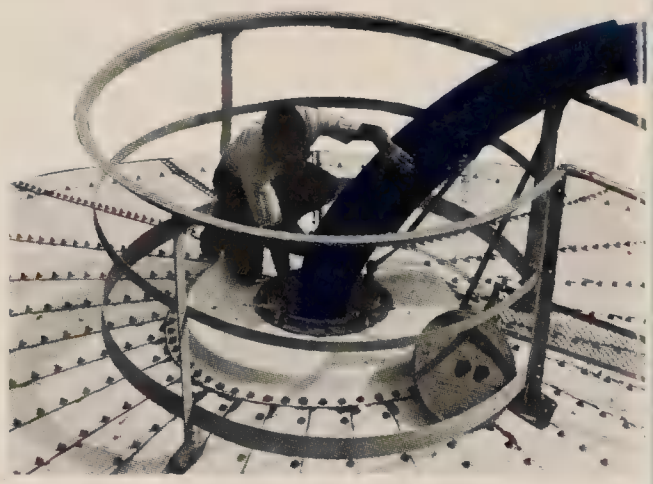
Trained specialists pneumatically tighten joints with torqued bolts to pre-set pressure limits. Inside bolts are plastic capped to minimize friction. Upon completion the entire structure is pressure tested. Even pin hole leaks can be detected and corrected.



Pressure regulating breather system compensates for internal pressure changes by "breathing" air in and out. *During the day, heat causes gases in any structure to expand.* At night, lower temperatures cause gases to contract. The Harvestore breather system compensates for these changes by deflating during the day and inflating at night. This limits the air coming in contact with the feed. Oxidation losses are minimized. Fermentation is controlled.



Air-tight, marine-type hatch, with rubber gasket and clamps, helps seal air out of structure between fillings.



Automatic bottom unloader... offers the dependability of 25 years experience and development. First in is always first out. The ability to fill in at the top as you feed out at the bottom guarantees many times the feeding capacity of an ordinary silo.

Check it out.

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1973 Horse Judging Contest



For The Northeast Farmer

FEBRUARY 1973

American Agriculturist
and the
RURAL NEW YORKER

Three big performanc guarantees!

Corn growers and soybean growers... here's a performance guarantee against weeds in corn with Stauffer's Sutan® herbicide plus atrazine.
...And against corn rootworms with Stauffer's Dyfonate® soil insecticide.
...Also, against weeds in soybeans with Stauffer's Vernam® herbicide, used preplant.

We can make this guarantee of herbicide performance because Sutan and Vernam are incorporated in the s as you work ground before planting. This is what m weed control sure... rain or shine! You'll destroy tou nutgrass, pigweeds, fall panicum, foxtail and many others.

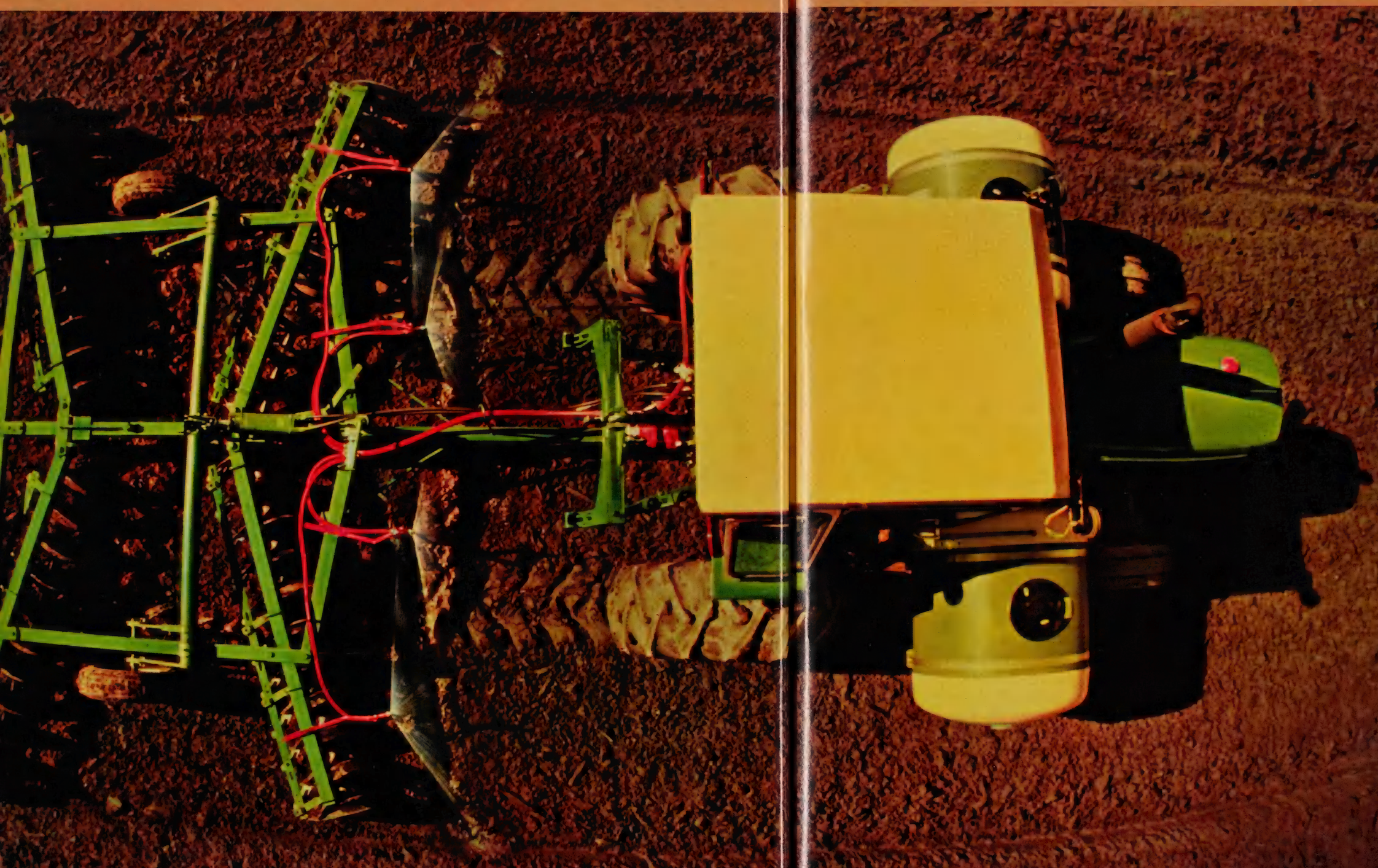
Dyfonate stops corn rootworms with one planting-ti band application, no matter how late corn rootworm s hatch. Broadcast application before planting contro

hylans, an important new pest, and wireworms. yfonate on all corn, including that for dairy cattle.

rmance of Sutan or Sutan plus atrazine or Dyfonate, nam (used preplant), is guaranteed in certain states used by label directions, or Stauffer will replace Register purchase with your dealer, leave a check and notify Stauffer within time limit.

guaranteed performance products can help make profits for you. See your authorized Stauffer dealer now. Stauffer Chemical Company, Agricultural Chemical Division, Westport, CT 06880.

Sutan®, Dyfonate® and Vernam® from Stauffer CHEMICALS





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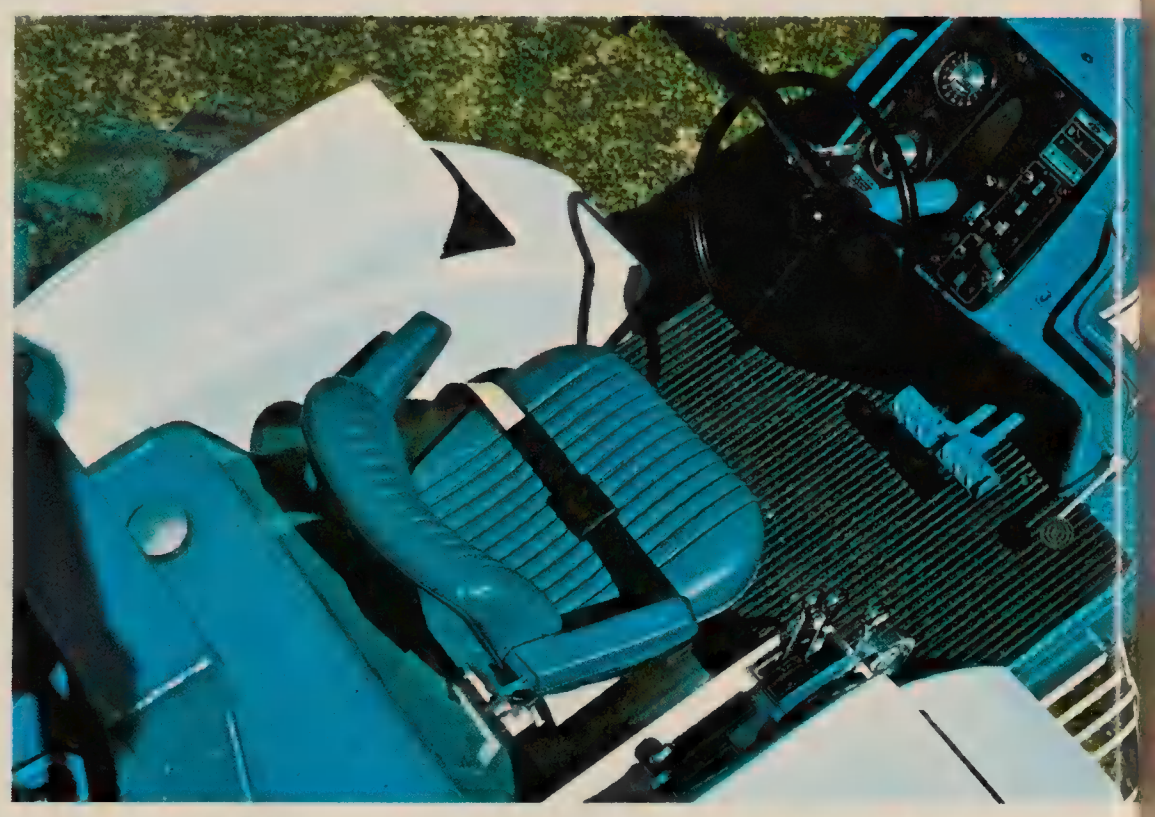
Ford Blue brings you powerful new giants.



New Ford 8600. Smooth 110-hp performer.

New Ford 8600 workpower outshines anything in its class. 110* horsepower with weight and strength to pull six bottoms with ease. Tough spots? Optional Dual Power lets you shift on-the-go—get 28 per cent more pull-power with a touch of your toe. And famous Ford hydraulics keep you on the move. Big capacity and fast response. Let us demonstrate the Ford 8600 for you.





Climb aboard. Convenience all the way!

Try the controls—get the feel of the spacious 9-sq-ft deck. New Ford 9600 and 8600 offer lots of convenience in common. Contour-cushioned seat adjusts to your height and weight. Underfoot, the comfort of a thick, slip-resisting rubber mat. All controls in easy, natural reach. Let us show you how easy a day on a tractor can be.

New Ford 9600. Giant convenience machine.

Lightning fast power response from 135* turbocharged horses. Positive gear selection with straight-line shifting. Smooth power-engaged PTO with 540/1000 rpm. Leg-stretching room on the big 9-sq-ft deck. Controls and instruments perfectly positioned. You get more work done with Ford 9600 and do it easily. That's convenience. And the convenience extends right down to dozens of easy-care features. Let us show you the remarkable new air cleaning system. The fast, clean new coupling system for remote hydraulics. See for yourself why we call the Ford Blue 9600 the convenience machine.

**Manufacturer's estimate. Observed PTO horsepower.*

Come in... let's talk.

We're listed on the facing page.



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OUR COVER

Edward Harke, Jr. and his brother Frederick of Liverpool, New York, enjoy joining their families aboard a bobsled and driving through winter snows as in yesteryear. You'll find some more horses on page 14 of this issue . . . a little different type than those on the cover, but enjoyable just the same. Photo: Joseph Albino.

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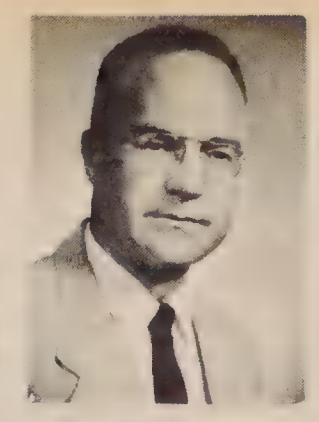
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EDITORIALS



by GORDON CONKLIN

TABLE SALT'S LD-50

The chemists have a jargon all their own, just like other occupational groups . . . including farmers. When testing to find just how poisonous a substance is, scientists refer to an "LD-50" which means the dose level (Lethal Dose) which will kill 50 percent of test animals . . . and it's expressed in terms of milligrams of material ingested per kilogram of animal weight.

For instance, parathion . . . which is a very toxic substance . . . will kill 50 percent of the test animals at a level of only three milligrams per kilogram of body weight. Nicotine, which is voluntarily drawn into the lungs of millions of smokers, has an LD-50 at the level of 50 when measured on the same scale.

Most pesticide-haters overlook the fact that practically everything has a potential LD-50 rating. Caffeine, that stimulant so important to coffee sales, will kill half of the test animals at a rate of 200 mg/kg . . . more lethal than the now-infamous DDT (which has a rating of 250 milligrams required to do the same job).

Malathion at 1,500 mg/kg is only slightly more toxic than aspirin at 1,750 . . . and table salt (sodium chloride) is on a par with DDD (a chemical relative of DDT), both having an LD-50 of 3,400 mg/kg.

For practically any pesticide, a comparable toxicity could be found in commonly-used household materials. Most any drain-cleaner would prove as poisonous as some of the hotter pesticides.

My point is not to claim that pesticides may be treated carelessly . . . but rather to say that our world is full of toxic compounds which, in their place, are very much needed by people. Pesticides are just one more category in a long list of useful (but potentially toxic) compounds that includes such things as aspirin and table salt.

If we can gain some perspective about these items, including pesticides, then we can rationally evaluate them in terms of the benefit/risk ratio. Thereby, we can avoid the emotional overkill . . . concerning pesticides, as well as other materials . . . that always leads us to undesirable long-range decisions.

BARGAIN HUNTER

Once upon a time, in the far-off land of Organized States, there lived a young man who believed that farmers were ogres for paying what he considered to be low wages to their hired help . . . especially seasonal laborers. He boycotted any lettuce that did not bear the farm labor union's screaming-eagle brand . . . and attended meetings called to protest the alleged underpayment of farm employees.

Interestingly, he drove to these meetings in an imported Folkswagon automobile, offered to purchasers in O.S. at a cheaper price than comparable domestic cars because assembly line wage scales were lower in Doitchland where the FW's were built. And he wore fashionable clothing shipped in from Bong Kong, where tailors would work for a fraction of the wages demanded by their counterparts in O. S. His mod boots had been made in the distant land of Mafia and delivered to the young man's home town at prices so low as to make competing local shoe manufacturers wince.

Rising at a meeting, he cried, "Farmers are criminal to use offshore labor in competition with those already in our midst. Growers should pay more as a matter of social principle . . . regardless of the economics involved. They should be more concerned about the people who sweat in the vineyards than in getting a cheap buy on what they need."

After his impassioned speech, he wiped his eyes on a handkerchief imported from the Emerald Isle . . . a recent "29-cent special" at all the Cottonworth stores . . . and went home feeling enormously virtuous because he had struck a blow on behalf of mankind.

His dinner consisted mainly of an economical leg of lamb from Hosstralia.

SUPPLY MANAGEMENT

Economists at the University of Wisconsin have tested the attitude of Badger State dairy farmers concerning supply-management programs . . . and found that they aren't enthused. In fact, those dairymen went on record favoring that the price of milk produced in excess of quota should be **at least** as high as the price being paid for manufacturing milk.

There is plenty of evidence that milk supply management programs don't **work** unless the price for excess milk is **lower** than that being paid for manufacturing milk. Alas! Dairy farmers can be as unrealistic as any other group about the facts of life concerning human nature and the workings of the marketplace.

If and when some milk supply management program is ever adopted in the Northeast, it will be ineffective unless the milk produced in excess of quota returns a low, low price to the dairymen producing it.

SECRET WEAPON

A heart-disease symposium was held last fall at Milwaukee, Wisconsin. Advance publicity played up the fact that the host hotel would be serving especially-prepared meals . . . low in cholesterol and saturated animal fats.

When the session got underway, 20 wives of Wisconsin dairymen picketed the affair. The posters they held high declared the unfairness of beating on animal fat as the culprit of heart trouble . . . at a time when the consumption of vegetable fats has been rising for many years, and the incidence of heart disease has been rising along with it.

The gals got plenty of newspaper, radio and television coverage for their point of view . . . and the symposium speakers refrained from making sweeping statements against eating animal fats.

The wives of farmers also struck a blow on behalf of agriculture in western New York last fall when they picketed the plants of fruit processors, protesting the ruinously-low prices being offered for apples. Result . . . an additional 50 cents per hundredweight for processing apples.

Now some of the men . . . "chauvinists," the women's libbers would call 'em . . . tended to make light of these achievements of the fairer sex. But the fact remained that the ladies got into the spirit of the protesting times to get something done that needed doing.

The important thing to remember is that, in both cases, the facts were on their side. Considerable disagreement exists even among the experts about the validity of recommending diets without dairy products, meats, or eggs . . . and sweeping statements recommending vegetable fats just don't have conclusive evidence to support them. And, in the case of prices being offered by western New York fruit processors, they were clearly out of line with the facts of national supply and demand.

The gals, then, did not try to intimidate anyone to accept something that isn't so . . . rather, they dramatically called attention to some facts being overlooked. Maybe the men should be a bit more grateful, and recognize the possibility that their wives can form organizations that will be an important adjunct to more traditional bargaining activities.

TALK IS CHEAP

Over the years, I've formed a few conclusions about human nature that have proven to be valid in the overwhelming majority of situations. One of them is this: the intensity of a person's commitment to a particular course of action tends to be inversely proportional to the sacrifice which he must personally make if that course is followed.

Thus, I note that Senator Jackson points out that he is the only presidential candidate whose children are in public schools. The mayor of the city of Washington, Supreme Court Justice Thurgood Marshall, and newspaper columnist Carl Rowan . . . all blacks . . . send their children to private schools (immune to the battle over busing to achieve racial equality).

Some environmentalists who wax fanatical about the cessation of "exploiting the environment" are in a position to jet off to the Riviera when power blackouts threaten. Tell them of the agonizing problems of malaria in the tropics without DDT and they'll shrug, "So what? There are too many people there anyway." After all, **their** bodies are not being wracked by the ravages of the dread disease.

Some ministers and priests exhort their congregations to support vast new public spending proposals . . . but many clergymen have never paid a real estate tax in their lives.

And so on and on . . . editors are also not immune to the temptation to pontificate in favor of proposals for which they can avoid any personal sacrifice.

The moral of the story is twofold:

—Take with a grain of salt the impassioned rhetoric of politicians who are insulated from the consequence of the very courses of action they are promoting in their quest for votes.

—Let's ask ourselves now and then whether **we** are personally willing to **help** pay the price that is obviously demanded for the attainment of all objectives . . . including the things we are promoting at the moment.

GUEST EDITORIAL

One of the best arguments for home gardening is its therapeutic effect on human health. One of our modern day curses is that some of us have too much time on our hands, and we haven't been taught how to use it. Idleness produces illness. We're in an age of leisure and our society will decay if we don't spend our leisure time in a way that benefits our minds and bodies.

From the 100,000 letters we receive annually, we find that doctors, lawyers and professional people in all walks of life are taking up gardening to shake off frustrations and tensions. Many people with lower incomes are actually in better health than those with higher incomes because gardening gives them better diets, peace of mind and enables them to sleep better at night.

We don't say that gardening is the cure for all the modern-day ills. After having worked with thousands of gardeners and having written columns and books on gardening for the past 25 years, we strongly believe that gardening is the best medicine we have for many of our ailments. When you work in the soil, aspirin and tranquilizers are replaced by hard, yet enjoyable work. Gardening gives you a real chance to experience the outdoors and you'll sleep better nights. — *George Abraham, author of "Garden Talk," Naples, New York.*



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Northeast FARM EXPERIENCE



County agent Terrance Solan (left) visits with Harvey Alford about barn remodeling to put young cattle on the barn floor.

HEIFERS OVERHEAD

Harvey Alford operates a dairy farm near Mannsville, New York. Until April of 1972, he had been milking about 60 cows and keeping 40 to 45 head of young stock in a warm free-stall barn with herringbone parlor.

At that time, the farm next door was purchased. This increased the tillable land from 140 to 220 acres divided evenly between alfalfa and corn. The milking herd has been increased to 74 and he intends to go to 100 by removing all the young stock from the stable and putting in full-sized free stalls for the cows.

Needing room for these heifers, he decided to put them on the barn floor over the free-stall area. The barn was built in 1916 and was designed to hold loose hay. Harvey doesn't use any dry hay now. All the crops go into the silos so a lot of room echoes emptily above the floor that forms the ceiling of the stable area below.

Harvey comments, "A number of considerations influenced our decision to house animals on the second floor of our dairy barn. If we had built a heifer barn from the ground up, we would have had to construct a roadway, manure ramp, feed storage or transportation for feed, power lines and water lines and it would cost at least $3 a square foot for the building. Also, the assessors are always waiting with a sharp pencil to take notice of a new building so we decided to use the barn we have."

Obviously, the greatest potential problem involved is how to keep moisture from seeping down through the floor into the free-stall area where the milking herd is stabled. To prevent this, Harvey built up a series of layers, beginning at the bottom with tongue-and-groove matched flooring . . . then a layer of 6-mil plastic sheet . . . next half-inch plywood (C-D grade) . . . and atop it another layer of 6-mil plastic. Finally, concrete is poured on top . . . 3¼ inches thick in the alleyways, and 1⅝ inches thick under the free-stall beds. All concrete is reinforced with wire mesh.

Free stalls vary in length from 4½ feet up to 7 feet . . . the widths also vary in proportion to the lengths. The "upstairs" area of the barn will handle 50 to 70 head of young cattle. Baby calves will be started in an "ell" of the barn where a similar buildup of flooring has been made . . . also upstairs in the barn above the main stable.

What about the weight? "In years past, we've had 125 tons of baled hay in the barn at times," Harvey comments. "The concrete we're putting down weighs only 50 tons, so there is plenty of structural strength to hold both building materials and animals . . . a point we've checked with an agricultural engineer, by the way.

"We intend to clean the barn with cable-operated delta-type scrapers which will deliver the manure through a grate in the floor and a funnel-type chute to the floor below which is in direct line with the manure ramp.

"When our changeover is complete, we will have 96 free stalls downstairs with two feed mangers for a total of 110 feet of bunk and we will be able to group our cows for feeding different rations.

"All roughage will come from the silos and go upstairs to a large mixer on electronic scales, concentrates will be added as needed and the feed conveyed to the different groups of cattle. Free stalls will be covered with rubber belting with a good pitch to keep the heifers dry.

"We are looking for an intensive, efficient operation that will provide an adequate income for our family and help, plus regular time off and vacations for everyone without a hardship on the rest."

And so, the Alford farm will have an unusual two-story barn, with cattle on both floors. There is still plenty of room overhead in the lofty hip-roof barn . . . who knows, maybe Harvey will figure out some way to use the rest of it! — *G.L.C.*

STACKS MANURE

MacPherson Harmon and his wife, Ida, operate a dairy farm located on the Oatka Trail road near Mumford (Genesee County), New York. There are 200 head of cattle . . . 100 milking . . . on this 500-acre farm, to which another 150 is added by renting.

A family corporation . . . all the stock of which is owned by Mac, his wife, and five of their six children . . . owns the real estate. The livestock and equipment, however, are owned by Mr. and Mrs. Harmon.

Stacker

A recent innovation at the Oatka Trail Farms (since August, 1972) is a system of manure stacking. Although the herd is stabled in free stalls, enough straw is used for bedding so that manure is not the slurry-type that is usually the case.

The stacker is similar in mechanics to a typical gutter cleaner . . . except it forms an inclined plane, discharging into an aboveground area enclosed by concrete retaining walls. These walls are four feet high on the side away from the stacker, eight feet high on the stacker side. All walls are 12 inches thick; the concrete floor is 8 to 10 inches thick. Reinforcing rods are formed from used hoops that once wrapped huge vinegar casks at an area factory.

On one side of the manure-storage system is an opening 16 feet wide . . . into which planks can be dropped to form a dam. "This is the only major mistake we made," Mac reports. "When manure gets about two feet deep against the planks, its pressure bows the planks and they pop out of the grooves in the cement holding the ends." He'll put in two braces . . . pipe sleeves in the concrete, and removable pipe inserted in them . . . to hold planks in line.

Little Odor

No surface water can run into the storage area, but precipitation does fall into the unroofed structure. Exposure of the manure to air and sun renders it less objectionable in odor, the Harmons report, than is the case with manure stored as a liquid in tanks. The stacker system here can hold a three-month supply from the herd.

Mrs. Harmon milks the herd . . . with the help of a hired man in the morning, and in the evening she's assisted by a married daughter who lives in the area. Grain is fed in the milking parlor . . . a mixture of one-half oats and one-half dried shelled corn by volume (plus protein supplement when haylage is of low quality).

In an ordinary year, though, the Harmons buy no protein supplement, depending on high-quality haylage for that necessary nutrient. Haylage and corn silage are fed 50-50 by volume . . . about one-third to two-thirds, respectively, by weight. No dry hay has been fed the milking herd here since 1963.

Mac looks back down the years . . . and then to the years ahead and philosophizes a bit. "Some farmers get a bit riled about manure disposal and claim that they'll do as they darn please about spreading it when and how they want to . . . odor and pollution be darned! But my guess is that this attitude won't work in the years ahead. Hopefully, the stacker system will not only be more convenient for me, but also a long-range answer to come of the manure-disposal problems of the future." — *G.L.C.*

HIGH-RISE HOUSE

Robert Salzbury and his son, Thomas, operate a poultry farm near Phelps, New York. Tom is the fourth generation to operate this farm.

The egg business has been under low price pressure during the last two years. Summing up that pressure is Tom's comment, "The blend price to farmers of all egg grades runs about 11 cents per dozen **under** the Urner-Barry price quotations . . . as much as 7 cents under on the **large** size."

The Salzburys have 37,000 birds in a high-rise building measuring 40×512 feet . . . another 11,000 birds in a conventional cage setup. They have recently experimented with a forced moult of the 11,000 birds after they were in production for 15 months . . . the first time they've tried recycling a flock of layers.

Their moulting schedule starts with two days of no water, then water turned on only two hours each day for the next five days. Light is cut to eight hours per day, and stays at that duration until the birds begin to lay . . . then light is increased

The manure storage structure and stacker at Oatka Trail Farms.



on a schedule the same as would be the case with a pullet flock coming into production. To stimulate moult, oats and bran are fed for three weeks, then a 14-percent-protein growing mash, and finally back to a laying ration as egg production resumes.

Six Months

The Salzburys expect to get six months more of production from the recycled flock after they begin once again to shell out the eggs. One reason for the whole process, of course, is to economize by postponing the purchase of started pullets . . . costing around $1.60 to $1.65 each at the present time.

The high-rise building has proved an efficient facility for the Salzburys. They use fans in the pit to help dry manure . . . and, of course, the regular ventilation fans pull air down through the cages and across the manure accumulation.

The building is cleaned between flocks with the help of a custom operator who supplies a Bobcat and its driver. It required 39 hours of working time to clean out last time around . . . involving as equipment three manure spreaders and the Bobcat. Manure is spread on the land, then plowed under.

The Salzburys grow from one-quarter to one-third of the grain they feed . . . 150 acres of corn in 1972. They have the acreage to recycle wastes to grain crops, then crops to birds, and around again. — *G.L.C.*

CROSSBRED CATTLE

Ralph Wolcott and son Lee farm 553 acres near Oakfield, New York. Following the advice of the late Tom Milliman, who once wrote for AMERICAN AGRICULTURIST, the Wolcotts began in 1954 a program of crossbreeding in their 64-cow dairy herd.

"At that time," Ralph comments, "we had a herd of Guernseys producing 6,500 pounds of milk per cow. Now we have a herd producing 11,000 pounds of milk per cow, with a 4.1 percent butterfat test. Our calves are very strong and healthy . . . exhibiting the hybrid vigor typical of crossbred animals."

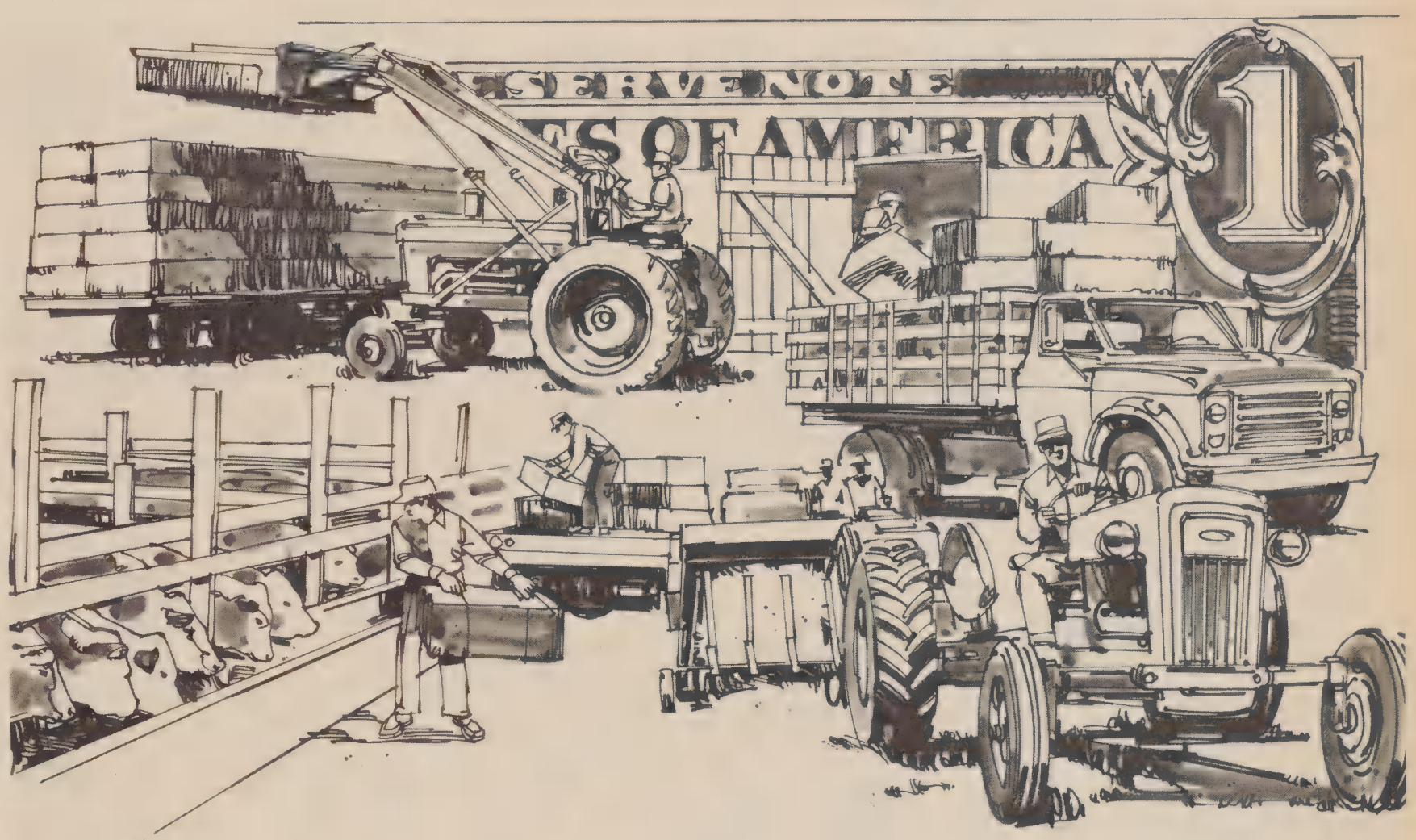
The Wolcotts have crossed Guernseys (and the crossbred progeny) with Red Dane, Ayrshire, Red and White Holstein, and Milking Shorthorn . . . the latter breed no longer used because of an apparent rapid drop-off in lactation curve. First-calf heifers are bred to an Angus bull to keep calf size small.

The Wolcotts have hired high-school boys by the hour for summer and weekend help for many years. One of them, Dennis Bueler, has worked for Ralph and Lee over a period of six years, another boy for four years. "Young people will work nowadays," Lee comments.

Ralph and Lee make it a point to work with them, and the general starting time for the boys is 9 a.m. "Some time off occasionally is another must if you want 'em to come back," Lee advises.

An unusual hobby on this farm involves a wildlife shelter behind Lee's home. He has, among other birds, 15 different species of pheasant! — *G.L.C.*

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Ernie Donnan of York, New York, sets the timer on a mechanical system delivering a mixed ration to the dairy herd. Included in the ration is a commercial grain mix containing some urea, and corn silage put up with an additive containing anhydrous ammonia. Both urea and anhydrous ammonia provide building blocks to the rumen for protein snythesis.

Economical urea

Beats the feed-cost blues

by William Quinn*

SUPPOSE when you stop at your friendly neighborhood feed dealer, he offers you two kinds of dairy concentrates, both A-1 feeds, both furnishing the same energy and protein equivalent. Two feeds . . . almost the same . . . except the price! For one sells for $100 per ton less than the other! Which one will you take?

Strange as it seems, if you're like many dairymen, you'll choose the high-priced mix! Because the other contains urea and, for one reason or another, some dairymen don't like urea.

Unfortunately, for too many years, urea has been getting a bum rap! It's been given a reputation it doesn't deserve. Dairymen have blamed it for all manner of things . . . from breeding troubles, to mastitis, to a run of bull calves.

Yet hundreds of experiments, in agricultural colleges as well as on thousands of farms, have repeatedly shown not one whit of evidence to indict urea in any animal health problem. Other research, such as that conducted at the University of New Hampshire, has proved that high-producing cows (over 17,500 pounds of milk), fed a palatable, high quality, mixed ration containing urea, perform just as well as animals fed no urea.

This year especially, with soybean meal going at almost double last year's price, is a good time to quit fighting urea! But even when the prices of soybean meal and other protein-rich supplements do decline, as they surely must, there should be no reason for dairymen to regard urea as anything other than a source of quality protein.

In the long run, as demand mounts for protein to feed a hungry world, dairymen **must** use the unique capacity of their cud-chewing helpers to take this synthetic product and turn it into valuable human food.

Now is the time for dairymen to stand back and take a second look at urea . . . at what it is, at how it works, and how it should be used.

Urea is a synthetic source of protein . . . a white, water-soluble crystal first synthesized in the laboratory of a German chemist almost 150 years ago. But urea is not always synthetic; it also occurs naturally in both plants and animals . . . in alfalfa and corn silage . . . even in the saliva of cows fed no urea.

No Energy

Urea itself supplies no food energy . . . but it **does** supply nitrogen. Cattle and sheep and other cud-chewing animals . . . those animals equipped with that marvelous piece of internal plumbing for fermenting and processing feeds called a rumen . . . can utilize this nitrogen to **manufacture** protein.

In fact, urea has value **only** because of its nitrogen content. The bacteria that make their home in rumen "steal" the nitrogen from the urea, mix it up with some carbon, hydrogen and oxygen which they "lift" from high-energy concentrates, and end up with protein. It's a case of feeding "the bugs" and letting "the bugs" feed the cow.

Plant proteins contain about 16 percent nitrogen. Feed-grade urea, on the other hand, contains 45 percent nitrogen. So for every pound of urea used, the rumen bacteria have enough nitrogen to manufacture 2.8 pounds of protein. Or put another way, one pound of urea will raise the protein content of 100 pounds of dairy ration by 2.8 percent.

If urea is so valuable, why all the controversy about it? Why have many dairymen labeled it a culprit?

In some cases, it may be because of improper use. Admittedly, urea has its shortcomings. It's not palatable; at high enough levels it's even toxic. It supplies no energy. Even the rumen bacteria require a "schooling" period to acquire the hang of using it.

But dairymen who understand how urea works can apply management techniques that will overcome these objections, and in the process save themselves hundreds of dollars!

When urea enters the rumen, a complicated chain reaction begins. An enzyme breaks the urea down into ammonia and carbon dioxide. The nitrogen in the ammonia is used by the bacteria to make protein.

But if ammonia is released too fast, it overtakes the bacteria's ability to handle it. Then several things may happen. The extra ammonia may be absorbed by the blood, or kicked out by the kidneys and wasted. Or at extremely high levels of ammonia release . . . at levels which surpass the body's ability to handle it . . . the animal may become sick, even die.

If urea is properly used, this will never happen. Proper use involves several management techniques:

1. **An adaption period.** Give "the bugs" time to adjust. Introduce urea into your feed gradually, starting perhaps at 10 pounds per ton for a couple of weeks, continuing until the desired level is reached.

One way to do this is by mixing your old non-urea feed with a new urea-containing batch. While it takes a while to adapt an animal to urea, this adaption is quickly lost when no urea is fed. So if you take your cows off urea rations, you'll have to start the procedure all over again.

2. **Enough energy from other sources.** Since urea contains no energy itself, it must be supplied from other sources, such as the energy-rich carbohydrates found in cereal grains. Perhaps some of the past dissatisfaction with urea may stem from those who have tried to use it to compensate for low-quality, energy-short, high-fiber roughages, or "cheap" grains filled with oat hulls and mill screenings.

3. **Avoid ammonia "peaks."** Feeding practices which supply a small amount of urea throughout the day maximize the efficiency with which the rumen bugs can utilize it. For this reason, total mixed rations or "complete" feeds containing urea, which are consumed by cows in small quantities throughout the day, can include more total urea than would be desirable in grain alone fed twice a day.

4. **Adequate supplementation.** We've said that urea contained no energy and should be used with feeds that do. It's also devoid of the minerals which most protein supplements contain. So if urea is substituted for other protein sources, such as soybean oil meal, mineral supplementation should be increased. Trace mineralized salt should also be part of the package.

5. **Accurate measuring and thorough mixing.** If urea isn't thoroughly blended and distributed throughout the total mix, a cow could get a slug of it large enough to be unpalatable, even toxic. This shouldn't be a problem with commercially-mixed feed. With on-the-farm feed processing, it's probably safer to buy a supplement high in urea and mix it into the grist than to use the straight urea.

6. **Avoid premature, pre-rumen ammonia release.** Too much moisture . . . in a wet manger, or in a damp, poorly ventilated milking parlor . . . can cause some fermentation in feed that stays in contact with it. This fermentation will release small amounts of ammonia from the feed. Your cows won't give that feed a four-star rating!

Raw soybeans contain an enzyme, much like that in the rumen, which can also release ammonia from urea. So don't feed the two together, or your cows may again stick up their noses.

7. **Don't exceed the maximums.** The question of just how much urea can be used in a dairy cattle ration is not an easy one to answer. Much depends on how, and over what period of time, the cow gets it.

Does she receive it as part of a total mixed ration, as urea-supplemented corn silage, in liquid carriers, or only twice a day in her grain? Probably the upper level is about a half-pound of urea per cow per day

*County Extension Agent, Onondaga County, New York

when used only in grain fed twice a day. However, in a total mixed ration, or perhaps even when added to corn silage as well as to grain, this level could probably be bumped up to as much as a pound a day.

Most dairymen will find no fault with grain mixes containing 1½ percent urea and should encounter no palatability problems. However, if they feed both urea corn silage and urea-containing grain, the latter should not exceed 1 percent.

In Silage

Dairymen who are heavy corn silage feeders find this to be a feed that is an excellent source of energy, but low in protein. One of the best ways to remedy that is by adding urea to the corn at ensiling time.

Economy-wise dairymen who add 10 pounds of urea per ton to the silage will increase its protein content about 45 percent (on a wet basis, corn silage at 33 percent dry matter would climb from about 3.0 percent protein to 4.3 percent). Then, not only can they feed a lower protein-level grain mix to their milking string, but they get an added bonus. Their tail-enders and dry cows, who need no energy from grain, are less likely to be protein deficient when restricted primarily to forage.

Care should be taken in adding urea to corn silage. The green-chopped corn should be at least 32-percent dry matter to prevent seepage . . . and the accompanying concentration of urea toward the bottom of the silo (or its loss through drain pipes). The weight of the corn should be accurately determined . . . at least with sample load weighings to predict future estimates.

The urea should be thoroughly mixed with silage. Sprinkling the 10 pounds per ton on top of an unloader wagon will do the job as the silage takes its journey through the beaters, the blower, the distributor, and finally the unloader.

Applicators

Applicators are available for choppers and blowers when dairymen are filling horizontal silos. Again, it's a good idea to weigh representative loads in order to adjust the applicator to deliver the right amount. If unloading wagons or dump trucks fill the bunker silo directly, the operation gets a little trickier, but is still possible with good management.

Both tower and bunker silos filled with urea-corn forage should not be opened for two or three weeks, until fermentation is complete.

Many colleges and feed companies have been tackling the problems of using urea, trying to hit it at its weak spots. One of their goals has been to develop urea feeds that slow the release of ammonia to a point where it can always be fully used. These controlled-release feeds would prevent any wasteful gush of ammonia into the rumen and prevent any chance of toxicity. (Who knows, some day feed companies may be advertising "tiny little time pills" made with urea.)

Considerable success, in fact, has already been achieved. In Ohio, research workers combined urea and dehydrated alfalfa into a pellet they called "Dehy-100," and found it would increase the amount of urea

(Continued on page 13)

A good feeling of a job done well

All new capacity. Like two blowers in one.

Now there's a blower that will be waiting for you when you get to the silo. And, chances are, your forage box won't unload fast enough to give it trouble. Gehl's all-new Forage Blower* blasts a solid, unbroken 9" stream of material into the tallest silo, keeping equipment, and the job, on the move.

Two whirling hopper tables share the feed-in job. They quickly spin material to both sides of the big 54" blower fan, giving it a running start. The fan, with 12 staggered, adjustable paddles (6 on each side) grabs the material at full-speed and blasts it up the pipe with power to spare, and the capacity to keep ahead. Clumps are broken up by the whirling feed-in tables.

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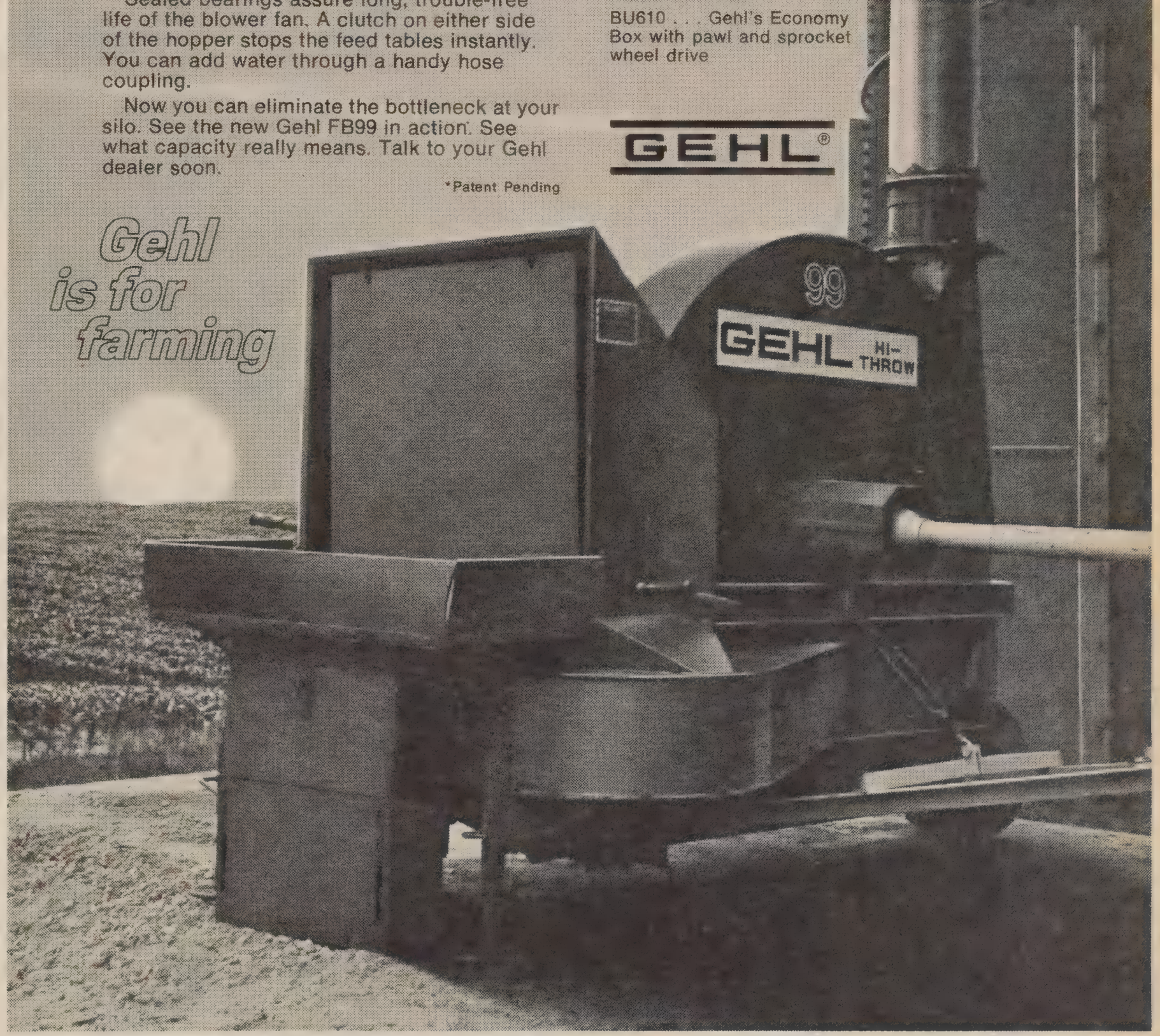
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Northeast FARM EXPERIENCE

PRISON COST

My employer is the New York State Department of Correctional Services, and I am a correction officer of some five years' experience. If you quote me, please do not use my name, as I would be the object of official and unofficial harassment.

The Newgate, official publication of the Department, boasts that the Department has created **431 new positions**, many at Grade 27 (pay with fringe benefits comes to around $30,000 per year) **in the past year.**

The State, with federal aid, is spending $9 million to make snacks available to inmates . . . this merely to placate black militants who laugh at the police, the courts, and the flag, and who call themselves "political prisoners." These thieves and murderers will return to crime as soon as they are back on the streets . . . in full confidence that the taxpayers (their victims) will support them in style when they are again caught and convicted.

Granted that the Department of Correctional Services is a small organization with special problems caused by liberals in and out of government, but it is obvious that the taxpayers are being used by cynical people in the Rockefeller administration to make jobs for themselves and their friends.

The same sort of attitude undoubtedly prevails among state employees in all departments.

CHESTNUT TREE

The American chestnut tree on the property of Mr. Harry Murphy of Victory, New York, was measured by a Department forester and has the following measurements: Circumference – 3′ 6½″; Height – 76′; Crown Spread – 40′. The tree is forest-grown and appears to be in excellent condition, with no visible signs of having the blight.

Several other trees of this species have been reported in our current Big Tree Project. The one having the largest circumference is located in Lewis County, and measures 4′7″ in circumference.

It is not unusual to find specimens of this tree throughout New York State, even though for all practical purposes the species was eliminated by the blight. Most of the living American chestnut trees are sprouts growing from stumps or roots of trees that succumbed to the disease. Some of these sprouts attain a trunk diameter of eight to ten inches before becoming infected. This vigorous sprout growth is capable of producing viable nuts which, with the help of squirrels, are distributed to start seedling growth. Few of these seedlings ever reach six inches in diameter.

Since the disease was introduced into the United States in about 1904, much research has been conducted by the federal and state governments and by universities. In the early days, the research was directed toward finding ways to limit its spread and to cure infected trees. Unsuccessful in this, the researchers then attempted to locate blight-resistant strains.

Although this work has continued to the present time, there is little hope that the species will ever again be an important part of our forests. Even if a resistant or immune strain could be developed and produced in quantity for planting, it would be difficult to establish it on its former growing sites that have been taken over by other species.—*John Nellis, Forester, NYS Department of Environmental Conservation.*

PARENTS NEEDED

Your magazine is informative and a joy to read. I especially appreciate the positive way "Doc" Mettler comes through. More power to those who lead our thinking along such lines!

Your bouquet to Cattaraugus County 4-H leader Carl Carlson of Cuba, New York, was heartening. Somehow his observation, "If any 4-H group is going to accomplish much, the support of the parents is necessary," should be burned on the mind of every parent who desires the best for his children . . . yet who wrings his hands and complains about young people. Mr. Carlson's statement holds true regardless of the name of youth programs . . . church, Grange, scouts, school, 4-H, etc.

Some of your readers may be interested to know that Cornell University has recently produced an excellent movie, "Partners With Youth." It shows ordinary people, old and young, doing "their thing" with youngsters under the 4-H banner, but not limited to farm-based youth. The movie is positive and an inspiration to potential leaders and sponsors. It may be obtained through New York 4-H agents who might also be asked to accompany the film for presentation. — *Bruce Smalley, 4-H Agent, Belmont, New York.*

SMALL DAMS

Your editorial "Dam Builders" in a recent issue is of particular interest to me. First, I am in full agreement with you that numerous small dams offer more ecological, recreational and flood protection benefit than a few large dams.

A little background . . . I'm the son of a farmer, and I own 150 acres of combination hardwood timber and Christmas trees. Further, I am a licensed consulting engineer and have designed, or supervised design, of some 15 or more recreational ponds (small lakes) from 2 to 30 acres in size. Beyond that, I am an active conservationist and a Tioga County legislator.

Small (compared to army engineer standards) dams with a fairly large storage area provide flood protection, swimming, fishing, and purely aesthetic pleasures. They are practical to build and not too expensive. Perhaps more important, they are built with private rather than public funds.

I suggest and recommend that the federal government provide a subsidy for the construction of private ponds if the storage depth of water is three feet or more under flood conditions. This will provide additional incentive for the "overdesign" of private ponds and may assist citizen owners in the construction of what would otherwise be fairly expensive recreational facilities, which will double as flood protection facilities.

Build Higher

As a county legislator, I am extremely anxious to make federal flood-control projects double as local recreation areas. Specifically, if the feds plan to make a flood control dam, local (county) government should allocate dollars to the cost of additional dam height and water level controls to provide a recreational lake and accompanying camping area for the use of the general public.

The Soil Conservation Service (federal) and local (county) Soil Conservation Districts will assist in plans for ponds such as I've mentioned above. If they can't handle it, a consulting engineer will do it for the landowner for a fee.

The individual landowner also has a responsibility and a say in how the lands of New York State and Pennsylvania are used for ecological and flood protection purposes. I think that a program of education on the design, building and use of small (30 acres or less) recreational-conservation ponds would be well worthwhile.—*Howard O. Ward, Candor, New York.*

FENCING LAWS

Editor's Note:

The Appellate Division of the New York State Court of Appeals recently handed down a decision that would, in effect, negate that portion of the state's fencing laws requiring each landowner to build and maintain an "equitable" share of the line fence between them. The decision, now being appealed to the Court of Appeals, would require only the landowner ***having livestock*** *to build all the fence.*

Here's one reader's reaction to the decision:

Here's how it's going to work out . . . Farmer No. 1 says I am going to put cows in my west side. He goes to Farmer No. 2 and tells him that, but Farmer No. 2 says I am not going to put cows on my side so I won't fix or build any fence . . . so Farmer No. 1 builds all the fence. The next year, Farmer No. 2 decides to put cows in the field next to Farmer No. 1's fence.

There is going to be a big argument, and is Farmer No. 2 going to repair somebody else's fence? This new law is going to make farmers and their farmer neighbors enemies . . . and it is bound to cause a lot of hard feelings among neighbors. — *Paul Green, Williamsville, New York.*



Old farm equipment isn't worth much on the junk market, but it can be put to good use, as shown here. An old tractor serves as the eye-catching mount for a farm identification sign.

SPORTSMAN

Some of your readers might be interested in a new magazine that is starting in our area; it is entitled THE MID YORK SPORTSMAN, published by Paul Keesler, Prospect, New York 13435.

It covers most of the area, and does a fine job. Circulation right now is only 2,000; as more people find out about it, circulation is bound to increase. It costs three dollars per year.

Generally offers a center fold map: one was of Lake Delta, tied in with an article on the fishing to be found there; of value to those who vacation and fish the lake; current issue offers lakes where ice fishing can be found, how to catch them, and the type clothing to wear.—*Bill Rawlings, Rome, New York.*

Economical urea . . . . .

(Continued from page 11)

used in the rations of high-producing cows. In their trials, urea furnished up to 40 percent of the crude protein-equivalent in the ration. The Dehy-100 was added to corn meal to produce a 19-percent-protein grain ration containing just under 3-percent urea.

At Kansas State, another product, Starea, was developed by combining urea with gelatinized starch.

Liquid urea supplements are already well-known to northeastern dairymen. Sometimes fed free choice from "lick wheel" tanks, other times blended into forage components, many of these supplements combine urea, molasses and minerals.

Other new controlled-release supplements are now being tested. Perhaps from out of a researcher's lab may come the one perfect way to safely and effectively feed urea free-choice.

More Profit

Until it does, money-wise dairymen will still be able to help themselves to added profit by employing those existing management techniques that permit the maximum use of this century-old product.

A recent Cornell bulletin will prove valuable to anyone interested in further information about using urea. Bulletin #1219, authored by Cornell nutritionists, Drs. Coppock and Slack, may be secured by writing the Mailing Room, Building 7, Research Park, Cornell University, Ithaca, New York 14850. The bulletin is entitled "The Use of Urea in Dairy Cattle Feeding."

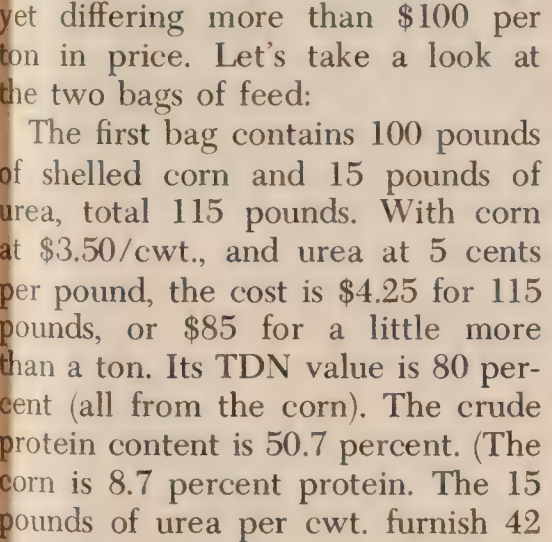
Arithmetic

Careful readers may wonder about the two feeds mentioned in the introductory paragraph . . . both containing the same protein and energy, yet differing more than $100 per ton in price. Let's take a look at the two bags of feed:

The first bag contains 100 pounds of shelled corn and 15 pounds of urea, total 115 pounds. With corn at $3.50/cwt., and urea at 5 cents per pound, the cost is $4.25 for 115 pounds, or $85 for a little more than a ton. Its TDN value is 80 percent (all from the corn). The crude protein content is 50.7 percent. (The corn is 8.7 percent protein. The 15 pounds of urea per cwt. furnish 42 percent.)

Bag #2 contains 100 percent of 50-percent-protein soybean oil meal. TDN value – 79 percent. Name your own price – at least $200 per ton at this writing.

The difference in price of these two mixing supplements . . . more than $100 per ton!



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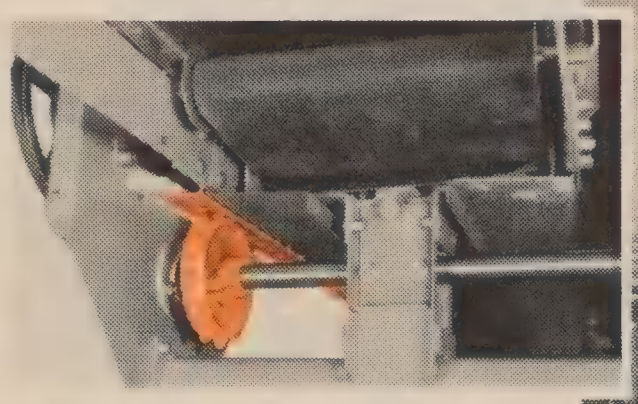
The name tells the story! With a Volume-Belt cattle feeder on the job, you have a big belt (14-in.) working for you. Extra capacity for fast, big herd feeding is insured by high, galvanized steel sides. Yet only a ¾ hp motor is required to load up a 125′ bunk. You save feeding time and power costs in the bargain.

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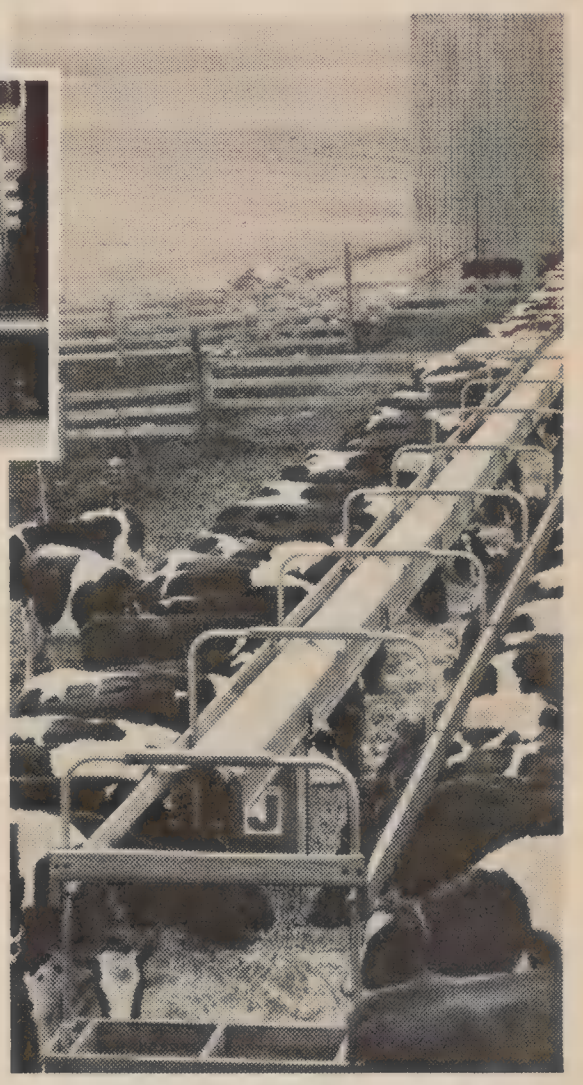
The drive is *stationary* and there are no cables, no feeding chain, no traveling electrical components, no moving motors, and no sweeper brushes to get out of whack. Volume-Belt efficiency and dependability are the result of our stationary drive. (See small photo above.) Rack and pinion drive is smooth and quiet with instant reversing. Drive is slip clutch protected. Note the heavy-duty nylon belt. Tough, industrial-rated rubber is double-bonded to rugged, two ply nylon. Cold weather can't affect belt flexibility.



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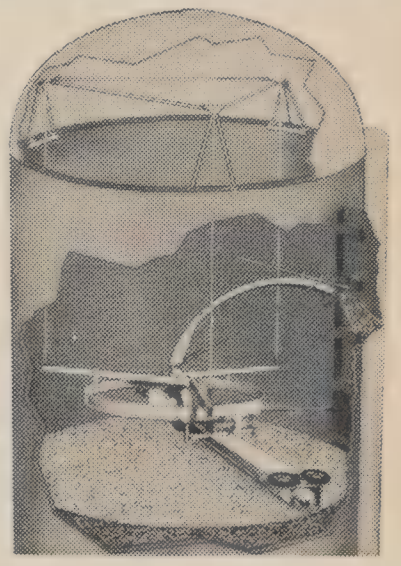
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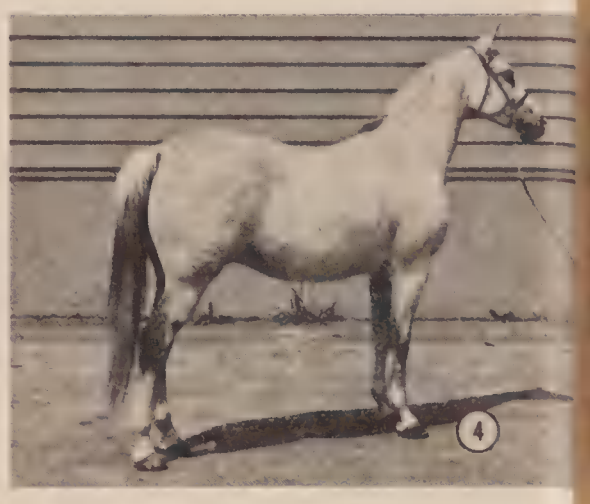
1973 HORSE JUDGING CONTEST

Class 1









Class 2

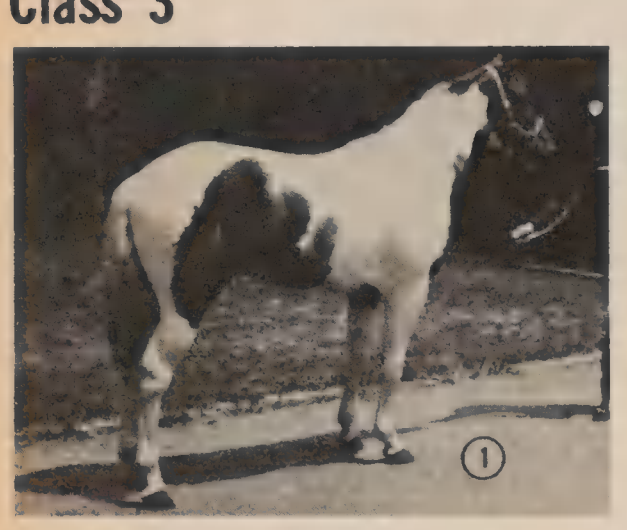








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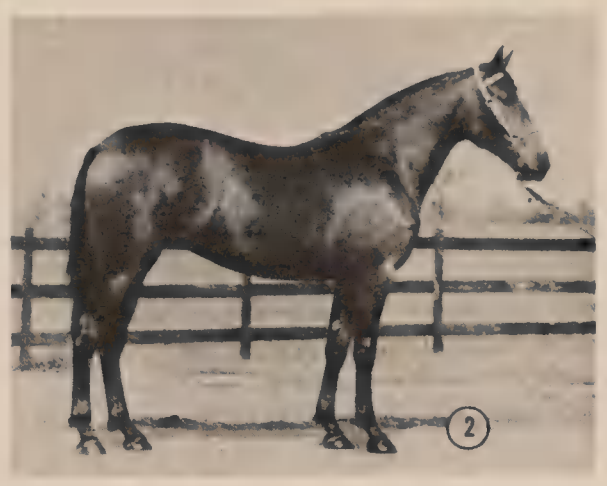


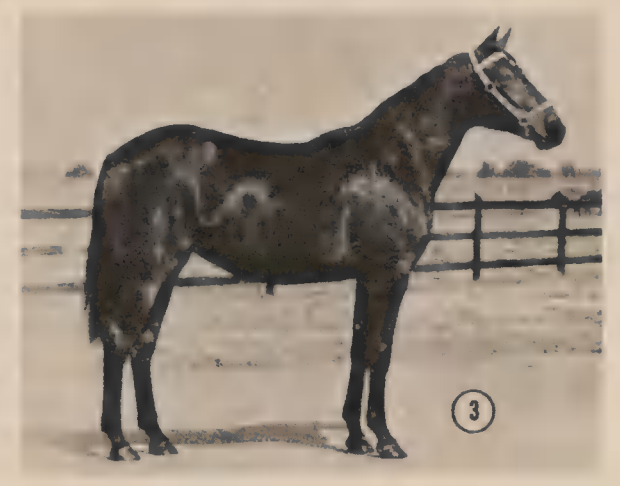




Class 4









Class 5









AMERICAN AGRICULTURIST HORSE JUDGING CONTEST

As a means of providing educational materials for those who are interested in horses, and for the use of Extension Services and other groups that may wish to conduct judging contests, we are offering five classes for use in studying and evaluating horse conformation.

RULES OF 1973 PICTORIAL HORSE JUDGING CONTEST

1. Competition is open to residents of the New England States, New York, New Jersey, Delaware, Maryland and Pennsylvania who own, ride or manage horses, or have an interest in them.

2. AMERICAN AGRICULTURIST employees and their families . . . as well as professional members of agricultural schools, colleges and Cooperative Extension . . . are not eligible.

3. The official entry form for the contest appears below. This form may be duplicated.

4. Only one entry per person is allowed. Print or type all information required, and mail so that it will be postmarked no later than midnight, May 1, 1973 to:

AMERICAN AGRICULTURIST
1973 Horse Contest
Box 370
Ithaca, New York 14850

5. Blue ribbons will be awarded to at least the top 250 high scorers on placings. In addition, special trophies will be awarded to the top 10 contestants.

6. In the final determination of the trophy winners, the judges may, if necessary, request a set of reasons to provide a basis for breaking tie scores.

7. Keep a copy of your placings, or mark your AMERICAN AGRICULTURIST for later reference. No entries will be returned. The decision of the judges in making all awards will be final.

8. A complete summary with names of winners, the official placings, scoring key, and reasons will be published in AMERICAN AGRICULTURIST after the close of the contest.

CONTEST MATERIALS MAY BE PURCHASED BY ANY STATE OR LOCAL GROUP

1. State and local groups anywhere in the U. S. that sponsor their own contests may use these same classes. Those entering such local contests may enter the AMERICAN AGRICULTURIST contest as well if they are residents of the New England States, New York, New Jersey, Delaware, Maryland or Pennsylvania. States outside this area may develop their own entry form.

2. Reprints of the pictorial presentation shown at left may be purchased (without entry forms) by commercial organizations, colleges, vo-ag departments, local 4-H clubs, Extension Service offices and other groups (anywhere in the U.S.) from the AMERICAN AGRICULTURIST at the following price schedule:

Number reprints	Cost per sheet
20-50	10¢
51-100	8¢
More than 100	6¢

Minimum order of 20

3. The five classes are available in a set of 2″×2″ black-and-white slides at $5 per set. Please send check, money order, or purchase order to:

AMERICAN AGRICULTURIST
1973 Horse Contest
Box 370
Ithaca, N. Y. 14850

After May 1, 1973, the official scoring key, placings and reasons will be published in AMERICAN AGRICULTURIST, and will be sent on request to slide purchasers.

*OFFICIAL ENTRY FORM

Mail before May 1, 1973 to:

AMERICAN AGRICULTURIST
1973 Horse Contest
Box 370
Ithaca, New York 14850

Your Name (Please Print)

Street, R.D. or Box Number

Village or City Zip Code

County State

Do you live on a farm? Yes ☐ No ☐

Check your age. 9-19 ☐ 20-39 ☐ 40-59 ☐ 60 or over ☐

How many horses on farm or premises where you live? _____

How many boarded off premises? _____

Are you a 4-H member? Yes ☐ No ☐

YOUR PLACINGS

	1st	2nd	3rd	4th
Class 1				
Class 2				
Class 3				
Class 4				
Class 5				

*This form may be copied or duplicated and used by residents of the New England States, New York, New Jersey, Delaware, Maryland and Pennsylvania. All questions and information must be included.



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The achievers

American Agriculturist honors young people

by Mary Craig

FOR more than 25 years, the AMERICAN AGRICULTURIST Foundation has been making annual awards to outstanding agriculture and homemaking students in high schools throughout the Northeast. The award focuses attention on good all-around schoolwork, and on the importance of becoming able leaders and responsible citizens.

Since the program was instituted, thousands of students have received the Foundation Award, and have gone on to fulfill the promise of their high school days. We'd like to tell you about the current crop . . . those selected by their teachers and principals to receive the award for the year ending in June, 1972.

As always, space is limited; we must let a few young people represent the achievements of many. Please remember that for every student whose work is described here, there are several others . . . just as deserving of recognition . . . whose stories had to be omitted. In alphabetical order by states, here are some typical award recipients:

The Girls

The 1972 AMERICAN AGRICULTURIST Foundation Award winner at **Housatonic Valley Regional High School, Falls Valley, Connecticut,** was senior **Patricia Hurlburt,** whose contributions to her local FHA (Future Homemakers of America) chapter earned her three degrees, two at the local level and one from the state organization.

Because of her ability to tie the goals of FHA into her school, home and community life, she also received a state FHA scholarship usually presented to a college sophomore majoring in home economics. This was the first time the scholarship had been presented at secondary-school level.

A member of the National Honor Society, Pat also received her school's Faculty Association Scholarship. She plans to become a home economics teacher.

At **Easton High School, Maine, Ann Flewelling** had four years in the home economics program and showed remarkable improvement each year. Besides being an active FHA member and officer, she was a delegate to Girls State, served on the yearbook staff, the student council and the cheerleading team, and participated in the senior play. She and her family are faithful church members.

Who's Who

Deborah Ann Wolf enrolled in vocational economics in the seventh grade at **Southern Garrett Junior-Senior High School, Oakland, Maryland,** maintained an A average for six years, and graduated second highest in a class of 200.

She was selected to Who's Who in American High Schools, Society of Outstanding High School Students, and is a member of the National Honor Society. She plans to major in home economics at West Virginia University.

Of the award winner at **Groveton High School, New Hampshire,** home economics teacher Miss Shirley Osborne says, "**Bethany Brann** is a conscientious student, always working to better her own standards, and her accomplishments serve as encouragement and initiative for others in her class. She is self-motivated and takes time to assist others in the betterment of their skills.

"Pleasant to work with and a definite asset to the department. Bethany is a high achiever and a prime example of a young woman who will utilize her knowledge of homemaking skills for the betterment of her home life."

We are proud to add Bethany to our long list of award winners.

Enthusiastic

At **Clinton Central School, New York, Lynn Nizial** was an outstanding homemaking student, showing enthusiasm and ability in a variety of areas, as well as a refreshing degree of maturity. Interior decoration was her special interest, and as a student representative to an Institute for Home Economics Teachers, she did an excellent job of presenting the views of high school students.

"A girl who does a little more than is expected of her," is the way **Patricia Thompson** is described by her teacher at **Fillmore Central School, New York.** Pat has excelled in most aspects of home economics, has been a leader in her classes and a good school citizen.

Interest, thoroughness, responsibility and active participation in home economics and FHA activities and community service were instrumental in winning the Foundation Award for **Connie Andrews, Oneonta Senior High School, New York.** In addition to serving as FHA secretary, she has many hours to her credit as a candy striper at Fox Hospital in Oneonta.

Progress

At **Rome Free Academy, New York, Lorraine Smith** has done many things that have helped to mold her into a fine example of a high school girl. Lorraine was chosen for the award because she made the greatest progress in cooking classes, and fashioned and made the best garments in the clothing and tailoring classes. She plans to continue her education in the homemaking field.

Sue Gadway is an attractive, intelligent young lady, sincerely interested in getting as much as possible from her career at **Saranac Central High School, New York.** She has evidenced a keen interest in learning as much as she can in all phases of home economics, and averages 95 percent in her grades. She is well-liked by teachers and fellow students, and is respectful and considerate of people of all ages.

Spencer-Van Etten Central School, New York, presented the award to **Barbara Ritzler,** whose attitude of

self-reliance and cooperation has been most valuable in her high school career. She attained an outstanding record in all her homemaking, social psychology and occupations courses.

Degrees

Recipient of the Foundation Award at **Shippensburg Senior High School, Pennsylvania,** was **Lee Ann Gontz.** Always a good home economics student, through the FHA she served as vice president of state projects for the Pennsylvania Association of FHA and as Pennsylvania's member on the Teen Times National Committee.

Work on personal, family, school and community goals earned her the junior, chapter and state degrees awarded through the FHA program. She won the local Junior Civic Club Sewing Contest and received the second place award in district competition.

Serving on several student committees for her school, Lee Ann is a well-known member of her class. She was a member of the court of the 1972 Homecoming Queen. Future plans include majoring in home economics at college.

Because **Maria Panos** displays excellent qualities of cooperation and enthusiasm in her classwork, and is one of the top-ranking students in all areas of home economics, she was the award winner at **Hope High School, Providence, Rhode Island.**

And at **Pawtucket High School, Rhode Island, Janice Horne's** homemaking accomplishments have been many and varied. When she enrolled in the course, she had no experience in clothing construction, but through the year made many items of wearing apparel, including an evening gown. She is never idle, but sews continually, constantly learning new techniques. She has also learned to knit and crochet.

Janice's teacher describes her as a "happy girl whose smile is catching, her eyes sparkling. She seems to radiate happiness wherever she is."

The Boys

Killingly High School, Danielson, Connecticut, chose to present the 1972 AMERICAN AGRICULTURIST Foundation Award to **Steven Smolenski,** a fine student of good character and pleasing personality, trustworthy and responsible to his commitments. An active FFA (Future Farmers of America) member, he served as chapter president. He also participated in school activities, was on the varsity football squad and wrestling team.

Although busy doing his share of work on the family farm, **Gary Collins** still found time to maintain good grades and glean the most from the vocational agriculture program at **North Harford High School, Pylesville, Maryland.**

A proficient FFA chapter treasurer and dependable member of the executive committee, he provided good leadership in the chapter, and in class activities. Gary enjoyed a fine reputation among those his own age, and was highly regarded by his teachers and other adults. He is now serving in the U.S. Marine Corps.

"A student who always wants to do his share and strives hard to succeed," describes **Joseph Joyce,** who did honor-roll work in agriculture during the four years he attended **Jamaica Plain High School, Massachusetts.** He also worked three years during school session, and did summer seasonal practice with landscape contractors.

At **Bridgeton High School, New Jersey, Francis Uhland** was a fine student, and an officer in the State FFA Association. He grows grain, corn and potatoes on his father's dairy farm. Francis plans to attend Penn State for a two-year farm mechanics program, then return to the farm and start a repair shop.

Primarily because of his achievements in connection with his supervised farming program, winner at **Adirondack Central School, Boonville, New York,** was junior **Mark Thornton.**

Over a period of years, Mark has developed a herd of 25 purebred Holsteins and has successfully shown many of them in state and national competition. He received the Empire Farmer Degree, and the State Star Dairy Farming Award.

He has served in various offices in his FFA chapter, and participated in all the leadership activities and contests available to the chapter. After graduation, he plans to continue on the home farm in a partnership operation with his parents.

James Murphy, winner at **Cazenovia Central School, New York,** represents a true case of determination

(Continued on page 18)



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"Actually, the man I want around here should be intelligent enough to have his own farm and not take this job!"

Achievers . . . . .

(Continued from page 17)

to achieve. A transfer into the school at the end of his freshman year because of the breakup of his family, Jim went through a number of jobs before he found himself and became the number-one farmhand on nearby Jonesvale Farm.

Energetic participation in FFA activities led to Jim's election as chapter president, and under his leadership the group had an unusually active and successful year. His plans were to attend SUNY at Morrisville to major in animal husbandry.

The choice at **Downsville Central School, New York,** was **Dennis Tait,** whom his teacher describes as "personable, always willing to help, and the type of student any teacher is glad to have." Dennis started his senior year with no thought of college, but the year was marked by a great deal of improvement in his schoolwork, and he decided to attend Delhi Ag and Tech the fall following his graduation.

Diversified

Few students have had the diversified farm experience of **Andrew Migonis, Hamilton Central School, New York.** He has lived on his father's 45-cow dairy farm all his life and has been involved in all phases of the farm operation. He presently owns eight dairy cows and two heifers.

Andy has had varied experience in all types of mechanical work, from complete tractor overhaul to construction of farm buildings. He is interested in soil and water conservation, and completely converted a 10-acre field from pasture to cropland. Besides clearing the field, he installed a drainage ditch with the help of the Soil Conservation Service.

He was selected as the top Empire Farmer in District 5 of the State FFA Association, and has applied for four National FFA proficiency awards in the areas of dairy farming, soil and water conservation, agricultural mechanics and home improvement.

In high school, he has been a class officer, FFA officer, and captain of the football team.

Hewes Occupational Center, Ashville, New York, selected **Roger Clark** for the award. Roger has been declared legally blind inasmuch as he only has slight vision in one eye. Despite this handicap, in his senior year he took over management of the home farm due to his father's serious illness.

His attendance at school has been excellent, he is in the top 10 percent of his agriculture class, and president of his FFA chapter. He has a great desire to learn about agriculture, and tries harder to accomplish what is relatively easy for other students.

From agriculture teacher Howard Nye at **Newfield Central School, New York,** comes high praise for award winner **Steven Maki** . . . "a fine example of a young American, a good school citizen, and a young man who dedicates himself to helping others."

Steven has been a 4-H member for seven years and has five cows, five yearling heifers and ten calves of his own. He has been a junior leader and leader in 4-H, and served as Teen 4-H agent in his county. He taught snowmobile safety courses, and helped lead the tractor certification program. He placed sixth in the tractor contest at the State Fair, and was a representative at the national contest in Virginia.

He has been active in school band, all-county band, Courtesy Corps and class activities, including the yearbook staff. Plans include majoring in animal husbandry at one of the Ag and Tech schools.

Hard Worker

Because of his record of agricultural achievement, **Bert Trombley** received the award at **Northern Adirondack Central School, Ellenburg Depot, New York.** He participated in FFA during his four years in high school, received the Empire Farmer Degree, and worked hard at trying to make his chapter one of the best.

Michael Ackley, Cowanesque Valley High School, Westfield, Pennsylvania, was exceptionally active in local, county and state FFA activities and 4-H Club. He has held offices, won numerous awards, and been in demand for dairy judging. He has shown his registered Holsteins at local and district shows and received many awards for fitting and showing.

He was named Star Greenhand, Star Chapter Farmer, Star Regional Farmer, and Star Farmer of Pennsylvania.

Michael has set an example in

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"Of our high school class he was voted the one most likely to succeed in dairy farming."

sports, too, and was active in junior varsity and varsity basketball, baseball and track. He plans to further his studies at the Delaware College of Agriculture and Science at Doylestown, Pennsylvania.

Mark Whiting proved himself a leader in many respects in his FFA chapter, his community, and in extra activities at **Wilmington Area School, New Wilmington, Pennsylvania.** His teacher, David L. Ward, believes that Mark is, and will continue to be, a credit to his community and country: "You might say, he is just a good citizen, and worthy recipient of the AMERICAN AGRICULTURIST Foundation Award."

And there you have them! A group typical of all those fine young people who are building a firm foundation for their future and for the future of their country. Our congratulations and best wishes to them, and to the other award winners reported to us as follows:

CONNECTICUT
Carla Chenette, Ellington
Gary Dunn, Wallingford

MARYLAND
Marlene Yoder, Grantsville

MASSACHUSETTS
Karen Christiansen, Holden
Chad Couto, East Taunton
Michael Lavalle, Norwood

NEW HAMPSHIRE
Cheril Arnold, Claremont

NEW JERSEY
Joyce Powell, Bridgeton

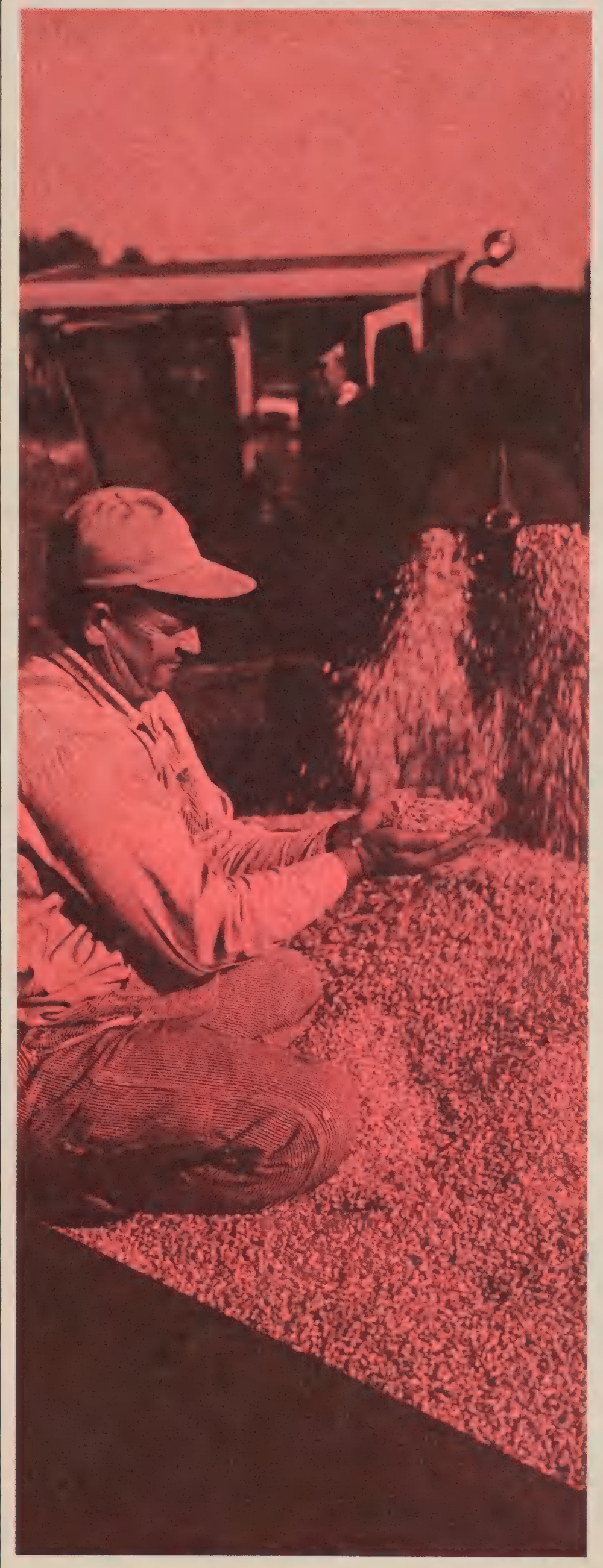
NEW YORK
Barbara Diehl, Wolcott
JoAnne Edwards, Rexville
Jill Foster, Gouverneur
Dawn Gibson, Brant Lake
Joan Graham, Potsdam
Cindy Hindrick, DeKalb Junction
Janice Lane, Adams
Karen Lilly, Belfast
JoAnn Mann, Trumansburg
Rosalie Morehouse, Minerva
Bonnie Payson, Ithaca
Cecelia Smith, Olean
Frances Turner, Akron
Gail Weatherwax, Argyle
Robin Wilson, Port Byron
Dale Clute, Naples
Verne Crain, Clay
Philip Emerling, Springville
Terry Foster, Olean
Robert Graves, Greenwood
Steven Hawrylchak, Richfield Springs
Dean Hurd, Almond
Gary Meek, Oxford
John Murphy, Wayland
Andrew Nistock, Prattsburg
Michael Olin, Harpursville
Don Parsons, Walton
Paul Parsons, Mexico
Howard Persha, Carthage
Dan Schuppel, Sharon Springs
Randy Scott, Moravia
Jeffrey Smith, Medina
Jeffrey Speelman, Albion
Herbert Swain, Chase Mills
Neil Thomas, Remsen
James Toal, Batavia
Richard Yatto, Warwick

PENNSYLVANIA
Cheryl Walford, Gettysburg
Rhonda Ware, Saegertown
Dennis Brotzman, Laceyville
Roy Gochenauer, Chambersburg
Curt Held, Loganton
John Nicke, Sharpsville
Harold Miller, Ulysses
Cecil Rybak, Tyler Hill
Randy Thompson, Petersburg
Fred Weaver, Roaring Branch
Terry Willow, Mt. Pleasant Mills
Dale Wright, Beaver Springs

VERMONT
Mary Smith, Morrisville
David Bradley, Middlebury



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How to

Live to be 100

DRIVING past Mrs. Margaret Heckert's place in Northumberland, Pennsylvania, her family doctor discovered her climbing a cherry tree without a ladder. "Hey, that's no place for a 95-year-old," he shouted. "You come right down from there!" Mrs. Heckert did, and then invited the doctor into her kitchen for a big wedge of the cherry pie she'd baked earlier that day.

Five years later, the spirited lady was still around to tell that story . . . shortly before her 100th birthday . . . to an interviewer from AMA Update (published by the American Medical Association), which recently surveyed the explanations centenarians give for their long lives.

Century Mark

Nearly 7,000 men and women who have passed the century mark are currently on the rolls of the Social Security Administration. That's about 1,800 more than were listed last year, so their numbers are growing. How did they do it?

Mrs. Ina Braucher of Altoona, Pennsylvania, married a farmer and has been a farmer all her life. Her secret of longevity: "I always worked hard, kept busy, and lived moderately." She also credits the doctor who looked after her for 25 years.

Apparently lifelong robust health is not a requirement of long life. Thomas Harker of Mt. Holly, New Jersey, says he weighed two pounds when he was born and "was never strong or healthy."

In Snead's Ferry, North Carolina, Augustus Grant farmed until he was 97 and still works his apple and pear orchard. "I never used alcoholic beverages, tobacco, or carbonated drinks," he says. "I've always eaten regular meals and gotten plenty of sleep. Also, it doesn't hurt to attend church and have good clean habits."

But Mrs. Telka Skraba of Norwich, Connecticut, who was born in Poland, reckons that a little wine or beer doesn't hurt, either.

Gardener

Italian-born David Orso, who lives with his daughter in Dorchester, Massachusetts, also enjoys having a glass of wine with his meals. He walks quite a bit, works in his garden, and uses his social security check to buy his pipe tobacco and stogie cigars.

Plenty of centenarians declared they violated every rule of health and conformed to none. "I smoke 18 cigars a day but I don't inhale," said one.

Although Mrs. Elizabeth Randall of Greensburg, Kansas, doesn't get around by herself anymore, she likes to be driven to town to get a hotdog. Her doctor advised her not to salt her food so heavily, "and I told him he won't live as long as I have, so don't try to tell me how to eat!"

Many old-timers expressed a lively interest in the opposite sex. "I'll tell you one thing," said Burrell Balkner of Fernbank, Alabama, "I always tried to go with the prettiest girls I could find."

"Pick your grandparents carefully," suggested John Bartol of Princeton, Wisconsin. He had two who lived beyond 100 years.

Most 100-year-olds seem to have these traits in common: an easy-going disposition, a quick sense of humor. and a desire to keep as busy . . . physically and mentally . . . as circumstances permit.

However, Joshua Green of Seattle may have identified the true secret. "The closer you come to age 100," he observed, "the more careful you are to reach it!"



SUGARING

Drip, drip, the drumdrops beat a tune
In frosty March that sings of June,

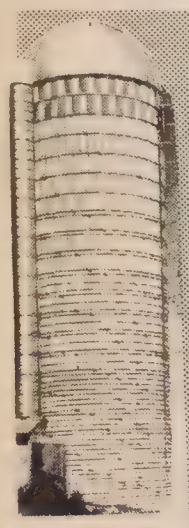
As farmers splash through slush and mud
To gather sweetlets in a flood

And garner them as gifts divine
Into their sugar-shanty shrine,

Where fragrant steam ascends on high
To form the clouds that scent the sky—

Earth's fitting sacrifice to God.
Who gave aroma to the sod.

Monroe Conklin

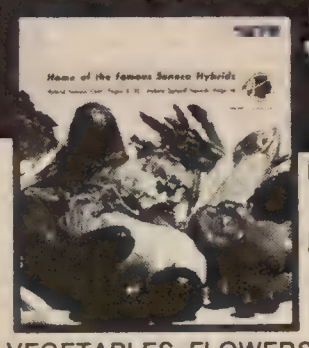


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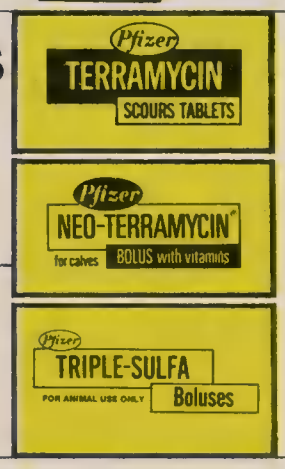


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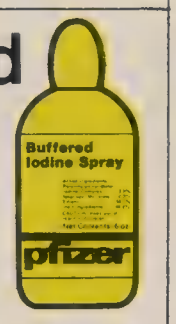
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Doc Mettler comments on:

Embryo transplants



IT seems that every time someone wants to emphasize the slowness of progress in his own field or complain about a broken piece of machinery, he says: "They can send a man to the moon, but they can't do so and so." Fact probably is that if as much money, effort and brainpower were spent on anything, it could be done . . . but like the moon trips, would be so expensive or cumbersome that it would be of no practical value.

Many of the things we thought were impossible ten years ago are routine procedure today, whereas some problems that people figured were sure bets to be solved are still without a solution. All too often an experimental laboratory procedure will be accomplished once and released to the press as such, only to be reported as a "sure thing," an accomplished fact that will soon be routine.

Predictions

For several years now, we have read predictions that soon man would be able to remove the embryo from a particularly valuable brood female and place it in a less valuable female to mature until birth. You could compare this to taking an egg from a good hen and having an ordinary setting hen hatch it while the good hen kept on producing eggs. In livestock production, it would mean that a particularly good proven brood cow could be the dam of dozens of offspring instead of the usual fewer-than-half-dozen in her lifetime.

The success of AI, whereby one bull can sire hundreds of calves, led many of us to believe that embryo transplant was just one more step that could easily be accomplished in our goal of improving the world's livestock. I now feel we were overconfident.

At the recent annual meeting of the American Association of Bovine Practitioners in Milwaukee, a paper entitled "Fertilized Egg Transplant" was given by Dr. E. W. Moss, a veterinarian from Calgary, Alberta, Canada. He made it clear that although he and his colleagues doing the research on this can accomplish the task with good success, it will be years (if ever) until the procedure is of practical value to most of the world's livestock breeders. The actual mechanics of the process are interesting, however, and I felt that American Agriculturist readers would be interested in them.

Exotic Breeds

To date, most of the transplants have involved using one of the exotic beef-breed females as a donor and a grade, nondescript animal as recipient. To use cattle with much udder development is difficult, since the incision to remove the fertilized egg in order to introduce it to the donor female is made just ahead of the pelvis on the belly wall where the fore udder on a good dairy animal is attached.

This would rule out our better dairy cows, unless a flank incision could be used. The sheer complexity of the surgery, the needed equipment and the personnel involved make the whole thing look to me like a moon exploration . . . possible, but not yet or for years to come practical for everyday use.

Even so, the technique is interesting, and like the moon exploration, something we can all marvel at. In Dr. Moss' words, let us suppose we have a cow of extreme value, a proven brood cow and the only one of her breed available. To duplicate her offspring, no expense would be too great.

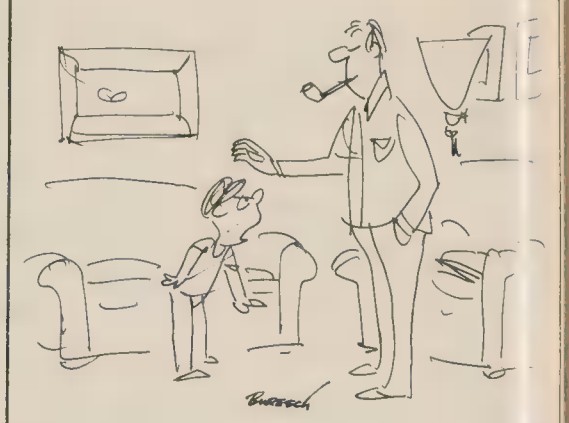
The owner of this cow (we will refer to the cow as the donor) will bring her to Dr. Moss' laboratory where she will be examined as your own veterinarian would examine an expensive cow you were going to buy to see if she is fit to breed. If she passed all the tests, on the 16th day of her heat cycle she would be given a dose of follicle-stimulating hormone to stimulate her to produce multiple ripe follicles. A ripe follicle is a blister-like sac containing an ovum or egg that forms on the ovary at the time of estrus or heat.

Examined

At heat, the cow is examined per rectum to determine if she has at least three or four ripe follicles to make the surgery worthwhile (at normal heat a cow has only one ripe follicle). If there are enough ripe follicles to warrant a transplant, the donor cow is bred three or four times at six-hour intervals with frozen semen. Her ovaries are examined per rectum to determine when the follicles have ruptured, and surgery is slated for about 36 to 72 hours after rupture (ovulation).

Consider the day of heat as day one. The recipient cows, usually virgin or first-calf heifers without much udder, must be synchronized to be on day one when the donor cow is on day two. Surgery is done on about day five. This in itself means keeping a large number of

(Continued on next page)



"Dad, the frustrated dilemma of a Future Farmer is not changed by a mere pat on the head rather than a fair-sized allowance by a farmer in his peak earning years!"

potential recipients for each donor since you have to have a recipient for each embryo. Estrus synchronization is possible with hormones, but natural cycling is preferred for a higher conception rate.

Both cows are starved out to reduce the amount of food in the digestive tract to make surgery easier. The donor cow is anesthetized, using an intravenous of a short-acting anesthetic and then inhalation anesthesia using a tracheal tube.

Surgery

Surgery is done with the cow on her back. The incision is made on the mid line as close to the pelvis as possible. The uterus and ovaries of the donor are brought to the outside, the uterus is incised and a specially-designed glass vessel is introduced into the uterus. At that time the fallopian tube (oviduct) is flushed with a salt solution using a syringe to wash the fertilized eggs (embryos) into this dish.

You may recall that in the normal cow, when the follicle ruptures the egg is washed into the fallopian tube where waiting sperm cells fertilize it. It is usually between day four and day six before the fertilized egg becomes imbedded or attached to the uterine wall.

In the embryo transfer, we are trying to remove several fertilized eggs and place them one at a time into recipient cows. The dish with the eggs is removed from the cow and put under a dissecting microscope. The donor cow's incisions are sutured shut and she is left to heal, in hopes she will be ready for a repeat performance in a few weeks.

The eggs are checked under the microscope to be sure they have been fertilized and are in the 16 to 32 cell stage. Each embryo is then placed in a special medium in an individual dish and kept at body temperature until the recipient cow is ready (some day these embryos may be frozen and stored like semen).

Next Operation

Each recipient cow is prepared exactly as the donor cow . . . the uterus brought up through the incision, opened and the embryo placed in it. The question as to why the fertilized ovum was not put in through a breeding pipette, as semen is, was answered by Dr. Moss, who said that the success rate this way was very low.

Since the recipients are usually small and the donor is of a large strain or breed, cesarian section is often needed to remove the calf at term. Some of the recipient animals do deliver naturally, however.

I have no idea of the actual cost of this procedure, but it would appear to be fantastic, not just for the surgery and manpower, but because of the number of animals kept around as potential recipients.

Someday, travel to the moon and further to mine or trade may be routine, and someday calves, lambs and foals may be produced in recipient dams as simply as chicks in incubators, but that day is a long way off. In the meantime, it is interesting to learn what these pioneers of research are doing, and to hope that just by chance they may learn something they were not asking for that can make some other impossible dream come true.

DILATORY DIETER

I needed to walk the "straight and
narrow,"
But before I could decide,
My straight got too much rounded,
And my narrow got too wide.

by D. A. Hoover



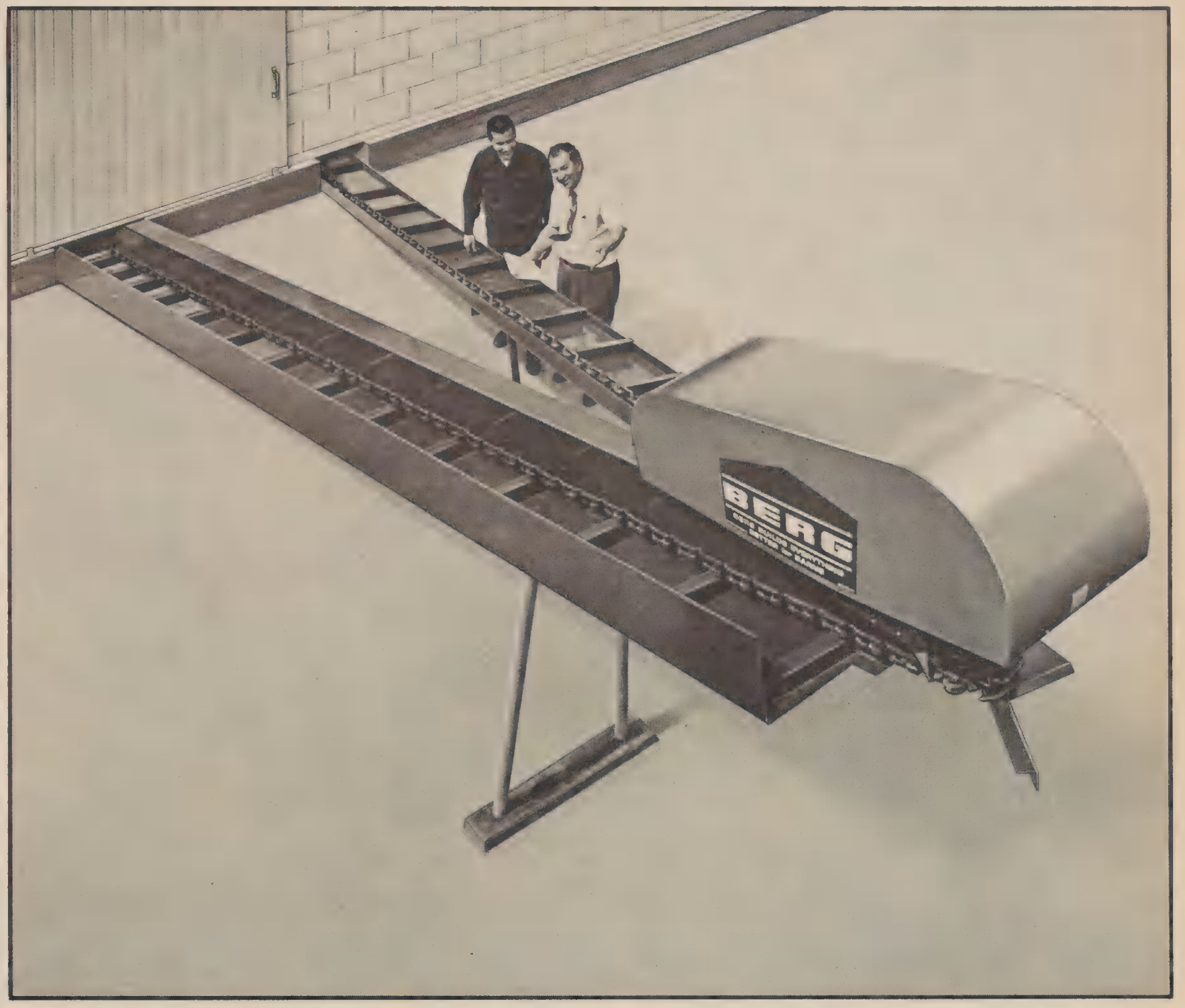
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Published by the Midwest Plan Service under the direction of agricultural engineers and consulting specialists at 13 land-grant colleges and the USDA, "Outdoor Living Planning and Construction Guide" (MWPS-12) is available to residents of any state, at $1.00 per copy, from: Mailing Room, Building 7, Research Park, Cornell University, Ithaca, New York 14850.

Other MWPS publications of interest, available from the same address, are:
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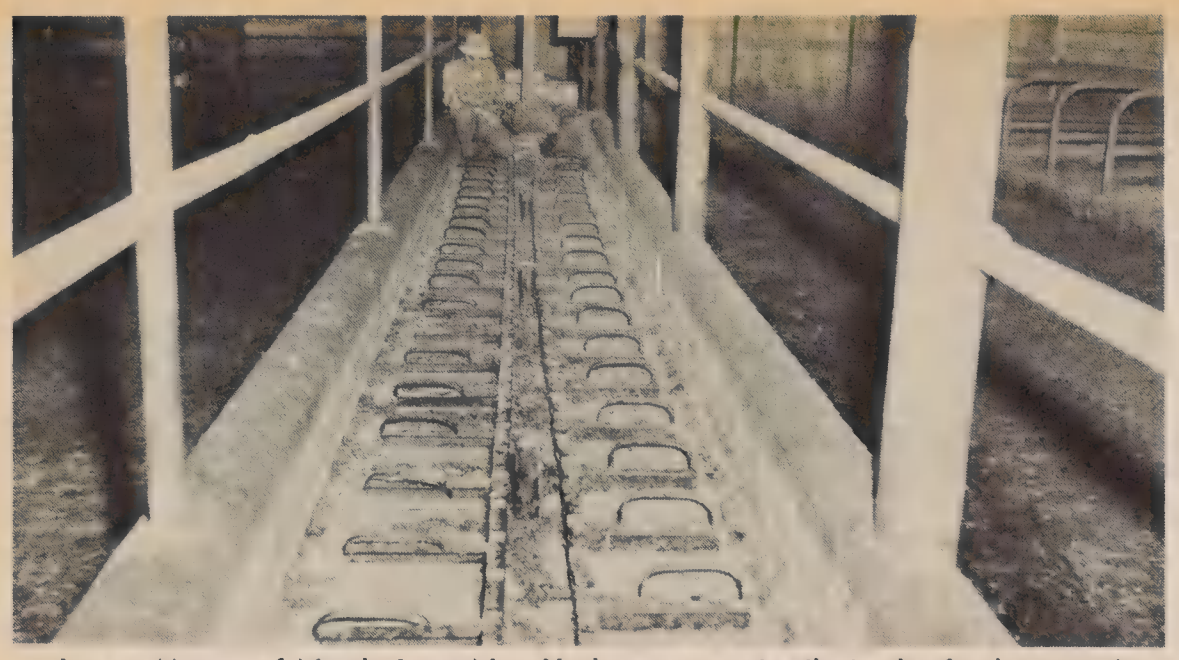
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James Meyer of North Java, New York set ceramic tile in the fresh-poured concrete floor of the feed bunk when he built his barn addition. The "handles" in the picture are part of the gutter-cleaner-type mechanism for moving silage.

Son Dennis checks equipment.

Dates to Remember

Feb. 5-8 - Regional Horticultural Meeting and Trade Show (N.J.-Md.-Va.), Baltimore Civic Center, Baltimore, MD

Feb. 6-8 - Annual Meeting, Weed Science Society of America, Regency Hyatt House, Atlanta, GA

Feb. 6-8 - National Dairy Housing Conference, Kellogg Center for Continuing Education, Michigan State University, East Lansing, MI

Feb. 12-14 - 58th Annual Meeting National Dairy Council, Caesars Palace, Las Vegas, NV

Feb. 12-15 - First International Snowmobile Congress, Sault Sainte Marie, Ontario, and Sault Sainte Marie, MI

Feb. 13-16 - Midwinter Meeting National Livestock and Meat Board, Fairmont Roosevelt Hotel, New Orleans, LA

Feb. 14-15 - Massachusetts Dairy Farmers Seminar, Highpoint Motor Inn, Chicopee, MA (Rt. 33, Exit 5 of MA Turnpike)

Feb. 17-24 - National FFA Week

Feb. 20 - 24th Annual Finger Lakes Grape Growers Convention, Penn Yan Academy, Penn Yan, NY

Feb. 20-21 - 7th Annual NYS Processing Vegetable Conference, Sheraton Motor Inn, Canandaigua, NY

Feb. 22 - 5th New Jersey Roadside Market Conference, Holiday Inn, North Brunswick, NJ

Feb. 27-28 - Dairy Herd Management Conference, J.O.Keller Conference Center, Penn State University, University Park, PA

Mar. 6-8 - Northeast Aerial Applicators Conference, Holiday Inn, Ithaca, NY

Mar. 22 - Agricultural Leaders Forum, Cornell University, Ithaca, NY

Mar. 23-24 - School for Christmas Tree Growers, Morrison Hall, Cornell University Ithaca, NY

Mar. 26-28 - Cornell University Agricultural Waste Management Conference and Symposium on Food Processing Wastes, Cornell University, Ithaca, NY

Mar. 29-30 - 26th National Conference on Rural Health, Statler Hilton Hotel, Dallas, TX

Mar. 29-30 - New Hampshire Poultry Health Conference, Memorial Union Building, University of New Hampshire, Durham, NH

Apr. 8-9 - Annual Central New York Maple Festival, Marathon, NY

Apr. 11 - 15th Annual New England Dairy Feed Conference, Hotel Lenox, Boston, MA

Apr. 28-29 - Annual Schoharie County Maple Festival, Jefferson, NY

June 10-13 - NEPPCO Egg Quality School, Quality Inn, Towson, MD (Exit 26 of Baltimore Beltway)

June 15-17 - 26th Annual Delmarva Chicken Festival and Delmarva Cooking Contest, Civic Center, Salisbury, MD

June 24-27 - Annual Meeting National Apple Institute, Park Place Motor Inn, Traverse City, MI

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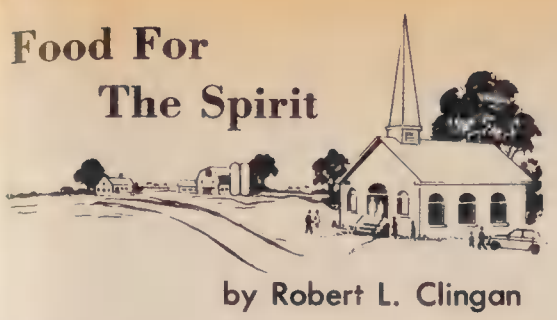
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"DEKALB" is a registered brand name.



"And how would you like to handle the payments for that tractor part?"

Food For The Spirit



by Robert L. Clingan

It was a church conference on stewardship, involving a number of churches in the area of Yuma, Arizona. After an initial presentation, the group divided into smaller groups. A young layman spoke up, "Our pastor has told us that our need to give is just as great as God's need for our gift."

Our **need to give** is reflected in Bible teaching. In the ninth chapter of II Corinthians, the apostle Paul declares that God has not only provided for our physical needs, but has given us a margin of resources to enable us to experience giving to others. He has provided for our living. He has also provided for our giving.

In Palestine, there are two lakes or inland seas that stand in vivid contrast to one another. One is the Sea of Galilee, the other is the Dead Sea.

The Sea of Galilee is a freshwater lake, abounding in life in all forms. At the time of Christ, it was so abundantly filled with fish that men could earn a living from it as professional fishermen. It was from these men that Christ chose his first disciples.

The Dead Sea is a deep recession in the earth. It has no outlet. There is no lower elevation into which its water may flow. Because it has no outlet, the water which continues to come into it can only evaporate. Consequently, the concentration of minerals, especially salt, makes it unfit to support any form of life. It is, truly, a dead sea.

The water that pours into these two lakes is largely the same. The difference is that one lake has an outlet, the other does not. Like a lake, a life-giving person must have outlets, channels of service by which he gives himself to others.

When Frank Laubach started his now worldwide program of teaching adults to read, he adopted the principle, "Each one teach one." No one could take Laubach's course unless he agreed to share what he learned with someone who did not know how to read.

Part of this was to prevent the exploitation of the ignorant by those who had the advantage of having recently learned to read. Frank Laubach must also have recognized that, by enabling people to give of themselves and of their newly-acquired skills, their deep need for giving had a channel and resource for expression.

The young Arizona layman was right. Your need to give is as great as God's need for your gift.



KEPT THE FAITH

This day is, in my life, a day to record. I have signed away to a younger man most of those acres where for many years I have spent my time and my strength in the labors of a farmer.

There are not so many of us left anymore who know what the feeling is like to love that land where you have plowed and harrowed, sowed and reaped, built fences and put up the hay and herded the cattle.

Now, as the one-time owner of that land, I bid goodbye as to an old and very dear friend. A man and his acres are, after all, not of different kingdoms. The man, the bird, the tree, the clump of grass all have the same Maker, and take their sustenance from the same prodigious earth.

By being human, I trust I have added something to this landscape of hills and valleys, but I could have done nothing without those other forms of life. Now I feel the loss of ties which are formed through labor and association.

Memories are all the harvest that is left . . . memories, plus the faith that other hands will do as well or better than mine have done to keep those acres fair to look upon. In a certain way, this land will always belong to me, even as a man must always belong to the great earth whose bounty he understands.

It is, after all, our sense of oneness with nature . . . our emotional ties with the meadows and pastures and woodlots . . . that put our life in a position of constant satisfaction. We may sell our land, and lose our friend, and meet with all manner of adversity . . . but there is always that in our natures which sustains us, even in our most abject hours, if we have kept the faith with this living and amiable earth. — *Edwin R. Rice, Randolph, New York.*

GUIDE LINE

Be careful how you live:
Your words, your faith, your deeds.
Yours may be the only text
Some neighbor ever reads.

by Eleanor Wood



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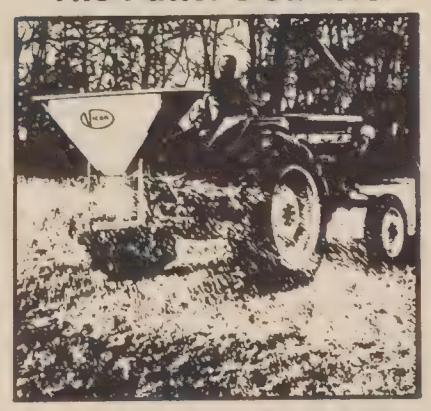
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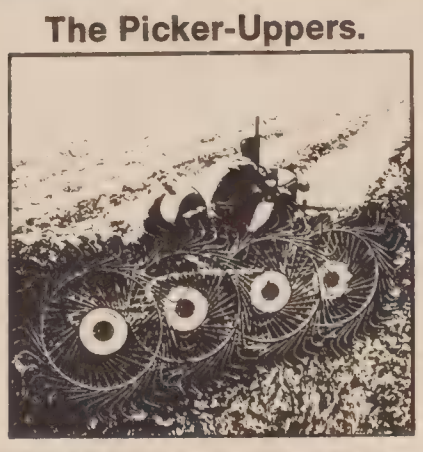
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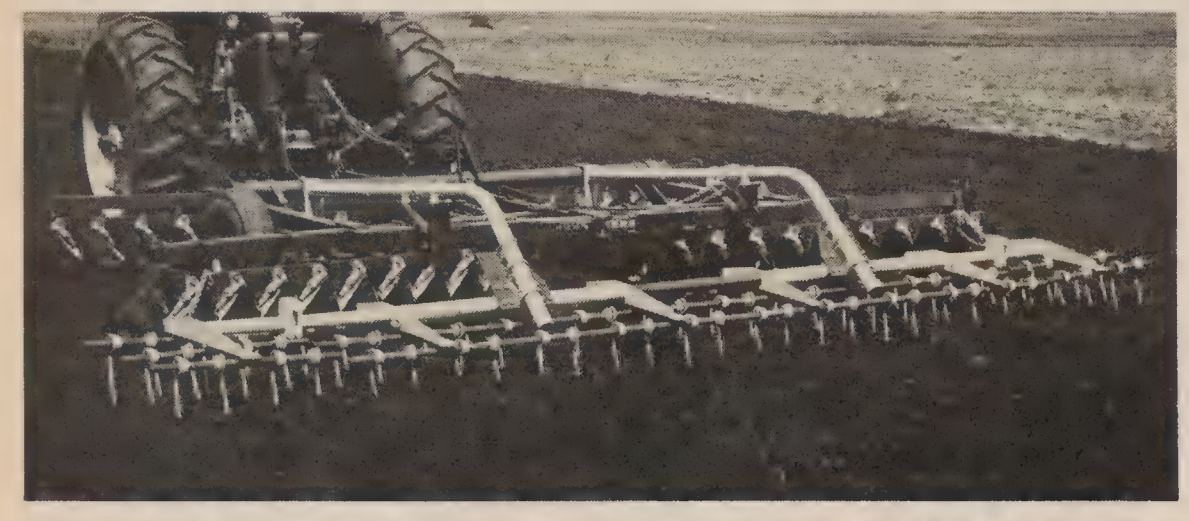
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Quoted comments recorded from December 18 presentation by Byron Godbersen, president of Midwest Industries Inc.

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What's NEW in the FIELD



by Bill Pardee

Crownvetch

WITH most other forage crop seeds in short supply this spring, crownvetch is receiving increased attention. Widely used in Pennsylvania and the Midwest for stabilizing road banks, this vigorous and spreading legume has potential for use in other conservation practices . . . and perhaps even for forage. To pull this information together for you, I have consulted with forage specialists Dr. John E. Baylor, Penn State University, and Dr. Bob Seaney, New York State College of Agriculture and Life Sciences at Cornell.

Crownvetch, where adapted, is secure in its role as a prime producer of vegetation for erosion control. It produces a mass of stems which intercept rain and running water, stabilizing soil on the steepest slopes.

Site Needs

Crownvetch does best on well-drained soils and can replace trefoil or other species on such sites. However, crownvetch is like alfalfa in its drainage needs and can't stand "wet feet." This means it won't do well on poorly-drained sites where trefoil now fits.

For forage, crownvetch can serve for pasture for beef cows and for youngstock. Flail harvesters can handle it, and so crownvetch can make good hay-crop silage. Its long twisting stems make it a miserable crop to handle for hay. It also dries slowly and is difficult to cure and handle.

Not Vetch

While crownvetch leaves look like those of other vetches, it is not a true vetch. In fact, it's not even a close relative. More important, it doesn't become a problem as other vetches can.

Once established, crownvetch roots spread and send up new shoots, thickening the stand. One crownvetch plant may spread over 5-10 square feet in a few years.

Crownvetch can grow vigorously and establish easily with modern seeding practices. However, in considering this crop, you'll want to select the places where this forage should be grown.

Best uses for crownvetch seem to be for soil conservation or for pasture on well-drained soils that you don't want to plow often. This could mean rough, stony soils, steeply sloping fields or any other area you'd like to seed down for a long period. Crownvetch can take over such sites and provide vigorous growth for many years to come.

But if you're planning to harvest your forage for hay, you'll be ahead to forget crownvetch. Sow alfalfa on well-drained land, and trefoil and grass mixtures on less well-drained soils. Crownvetch won't equal alfalfa yields, but is about equal to birdsfoot trefoil in productive capacity. Crownvetch can make excellent feed and it appears roughly similar to alfalfa in feeding quality, protein content and other factors that relate to animal performance.

Lime

Research on lime requirements of crownvetch shows conflicting results. To sum these up, it appears that for top forage production you'll need to lime as for alfalfa, bringing soil pH to 6.5-7.0. However, there are numerous examples of enough crownvetch persisting for ground cover at pH levels of 5.6 and below. Stand establishment appears to become less dependable below 5.6.

Crownvetch tends to be a slow starter. Early recommendations suggested sowing crownvetch with a grass. The grass started first and provided ground cover with crownvetch gradually taking over and dominating the stand after two or three years.

Recent tests have shown that herbicides like Eptam can reduce competition, and so speed up establishment, providing good stands by the end of the seeding year. But don't use 2,4D-B (Butyrac), a broad-leaved weed killer used in alfalfa establishment. Crownvetch is susceptible to 2,4D-B and will be killed along with the weeds.

Spring Seeding

Spring seeding is a must with crownvetch, since it will need the whole season to develop enough plant and root system to get through the first winter.

Best seeding rates range between 5 and 10 pounds per acre, depending on your seedbed, and your seeding practices. Sow crownvetch as you would alfalfa or trefoil, with the best depth being about a half-inch below the soil surface.

Several good varieties are available for the Northeast including Penngift, from Pennsylvania, and Chemung developed at the Big Flats SCS nursery in New York. Seed supplies of both varieties are plentiful for '73.

Inoculation

Inoculation is extremely important with crownvetch, since few soils contain the right bacteria for inoculation. Crownvetch requires its own special strain of bacterial inoculum. Alfalfa, clover or trefoil inoculum will not work on crownvetch. Be sure you have sufficient inoculum and that you add it to the seed with

(Continued on next page

a sticker so that the inoculum will stay on the seed.

Like most crops, crownvetch requires plant nutrients for growth. Penn State agronomists suggest plowing down roughly 45 pounds of phosphorus and 135 pounds of potassium per acre, following up with a row application of 20-60-20 at planting time. Cornell recommendations call for 40-80 pounds of phosphorus at establishment time and 20-80 pounds of potassium, depending on soil test levels. Where soil tests are not available, they suggest hitting the midrange or roughly 60 pounds of phosphorus and 40 of potassium.

For topdressing, Penn State suggests a maintenance application of 0-0-120 per acre annually, Cornell suggests an annual application of 20 pounds of phosphorus and 20-40 pounds of potassium.

Lower potassium suggestions in New York stem from the generally higher content of clay in most New York soils. Such soils have more potassium supplying power than soils higher in sand or silt.

Management

Seeding year management of crownvetch consists of controlling the competition. Usually a herbicide like Eptam will control weeds throughout most of the year. If weeds do creep through, a midsummer clipping may be desirable. Don't pasture or graze the crop the first year if possible, to permit maximum establishment. It will produce plenty in future years, if you protect it in the year of seeding.

By the following year you should have a good stand ready to go for considerable production. The first harvest should come when flowers are 1/10 to 1/4 bloom, normally in late June. For the rest of the summer, crownvetch should be grazed rotationally, providing plenty of time to recover between grazing. It can be grazed continuously as permanent pasture, but here you'll want to stock it lightly, so that individual plants aren't overgrazed, and have plenty of time to replace grazed off leaves.

Crownvetch does best when sown with a grass like timothy, brome, orchardgrass or tall fescue. Crownvetch will normally crowd these out after several years but they hold the soil while crownvetch gets started. Don't use Eptam if you're sowing grasses with your crownvetch since it's an effective grass killer.

Oats can serve as a crop to keep soil from washing away while the crownvetch and grasses get going. But sow the oats thin and graze or chop them off for forage to minimize competition.

As with most new crops, crownvetch takes a bit of getting used to to learn how to grow. This may be a good spring to try a small acreage if you have some land where it may fit. Seed supplies are the best ever for crownvetch and they're short in many other crops. So this may be the year to take a look at this crop.

ALFALFA FOR PROTEIN

Protein feed prices are going through the roof and many northeastern farmers are seeking ways to cut this cost. This has several implications. First, this year's shortage of soybean oil meal is not permanent. It stems from increased livestock feeding coupled with a disastrous fall harvest in which over 25 percent of the U.S. soybean crop may have been lost. This year's high prices will lead many farmers in the Midwest and other regions to grow more soybeans.

However, international demand for soybean oil and protein should continue to be strong and bad soybean years are possible in the future. Many Northeast farmers would like to grow more of their own protein to become less dependent on the ups and downs of the soybean market.

From where we sit, alfalfa offers tremendous protein-supplying potential which we've only begun to tap. This high-yielding legume provides a protein-rich feed that cattle like. Its potential yield of protein per acre is far above that of soybeans. More important, Northeast farmers can grow good alfalfa and it fits well into the cropping patterns of modern dairy farms.

Combination

A combination of alfalfa and corn silage can provide most of the protein and energy for high-producing herds. While I am enthusiastic about a limited expansion in soybean acreage in the few Northeast situations where soybeans are adapted, I see tremendous potential for expansion of alfalfa over the whole Northeast.

Though most forage seed supplies are limited this spring, alfalfa seed stocks are adequate for some expansion in acreage. My personal suggestion would be to examine your crops on your farm, consider your stands and how much alfalfa can be added next spring. You'll obviously want to figure in what this might mean in terms of additional storage, particularly since it may involve wet storage of silage, rather than as hay.

We'll be talking more about this in future issues of this column. I am enthusiastic about the twin use of alfalfa and corn silage, spreading the risk across these two high-yielding crops, both well adapted in the Northeast and both dependable performers.

Busy as a bee is a good metaphor. These hustling insects must visit about 2,000 flowers for each tablespoon of honey they make.



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Let's talk corn.

Many farmers in this area tell us they'll be planting more corn in '73. They need the home-grown TDN corn can supply, to help make up for the hay they couldn't make last year.

Growing clean corn will be important. In most fields, this means control of foxtails, quackgrass and a wide range of broadleaf weeds.

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But it takes the right rate. For best control of foxtails, quackgrass and most annual broadleaf weeds, you can't skimp on your AAtrex and get the control you need.

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Speak up for agriculture

IF you think your calls for a solution to the cost-price squeeze are falling on deaf ears, you may be right. If you want to do something about it, the newly-formed Agricultural Public Information Council (APIC) is giving you a chance to speak out. It is laying the foundation for a national public relations effort on **your** behalf. To meet the goal, they are asking that you take a few minutes to write and let your city and suburban neighbors know how you feel about important agricultural issues. Send your letters to: Speaking Out, American Agriculturist, Box 370, Ithaca, New York 14850.

Political clout is in the urban community . . . and legislators act accordingly. That's why legislation that affects your day-to-day farming operations are often influenced by people **outside** the agricultural community.

Frankly, they've done a better job of getting their story to the mass media. Look at recent action to curb rising food prices and regulate pesticide use. Consumer and ecology groups have made a lot of noise and gotten a lot of press coverage. Yet, how often have you seen the national news media tell the farmer's story? Not very often.

Part of the reason is that agriculture just doesn't have a high-powered public relations machine. However, the potential to develop clout does exist. While you represent less than 6 percent of the nation's population, the agribusiness industry accounts for one-third of the total work force.

Furthermore, surveys indicate that city folks are sympathetic toward the farmer's plight. What they need is to hear from you **more often**. Here's what you can do to help sell agriculture to the urban community.

APIC asks you to write, giving your opinions and solutions. They'll take the letters that best sum up the majority and minority views and put them into feature form for distribution to national press services.

For the broadcast media, they'll send radio and TV tapes of farmers like yourself, telling it like it is. APIC will also sum up the responses and present them to the decision makers . . . the Secretary of Agriculture . . . members of the House and Senate Agriculture Committees . . . and to the state legislators.

Spokesmen Awards

At the end of the year, the sponsor of APIC, Chevron Chemical Company, will ask a panel of qualified judges to select the letters that did the best job of selling agriculture to the urban community. The panel will choose a Master Farm Spokesman from each of the four regions . . . North, South, East, and West. Each Master Spokesman will receive $100 and an engraved plaque in recognition of his efforts. There will also be twenty-four $50 awards and one-hundred $10 awards to Farm Spokesmen throughout the four regions.

The following is the first set of topics for you to start working on to help promote agriculture to your urban neighbors. You can write on any one topic, or on all three if you wish. Make your letters brief and to the point and please sign your name and address. Send your letters to the address back there in paragraph one.

Letters must be at American Agriculturist offices by March 15, 1971 in response to the three questions listed below:

1. *"Land Grant Colleges Under Fire."*

Land-Grant Colleges have been severely criticized by representatives of the "Agri-Business Accountability Project." They charge universities with carrying out research designed to aid big farmers and corporations, while neglecting the small farmer and people in rural communities.

Do you feel your State University is guilty of favoring big farmers and big business?

2. *"Trade With Communist Countries."*

President Nixon's visits early last year to China and Russia have caused a good deal of speculation about the possibilities of increased trade with communist-bloc nations.

Are you in favor of our government establishing new markets for agricultural products through trade agreements with communist countries?

3. *"Keeping A Lid On Food Prices."*

Although food continues to be the American consumers' biggest bargain, rising prices at wholesale and retail levels have been a source of embarrassment to the Administration's efforts to halt inflation. Many ways of dealing with the situation have been suggested, yet no one has come up with a solution.

Who is responsible for higher food prices, and what can be done about it?

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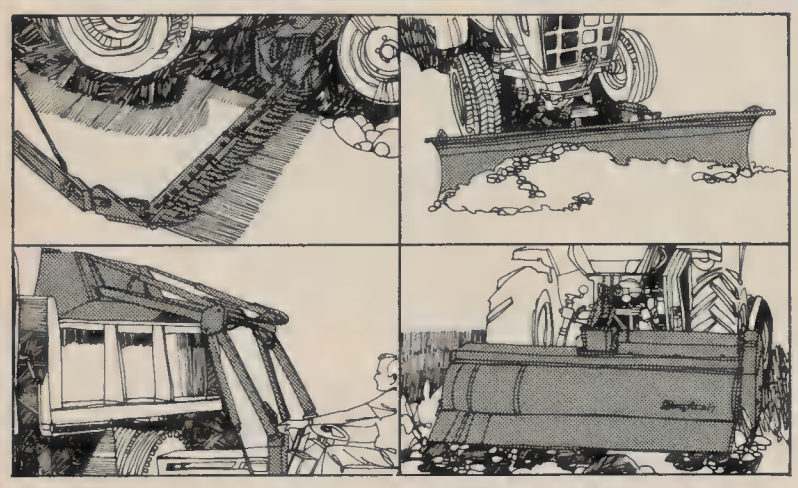
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FT-27

Manure disposal guidelines

Governmental agencies in Maine have developed a publication entitled, "Guidelines for Manure and Manure Sludge Disposal on Land." Twenty-seven agencies and organizations are listed in support of the guidelines . . . two of which are farm organizations.

Under the heading "Intent" are these comments:

"These guidelines provide the landowner with alternative criteria for manure disposal within the context of the stated objective. It is recognized that regulatory agencies such as the Environmental Improvement Commission, the Department of Health and Welfare, and the Department of Agriculture, receive increasing numbers of environmental and nuisance complaints resulting from various manure disposal practices.

"These guidelines have been developed from the best technical information available, combined with the best judgment of the various state and federal agencies, educational institutions and resource groups, with expertise in soils, agricultural manure management or environmental management. They will be reviewed and updated periodically and will serve as a basis for impartial review and judgment of animal manure disposal practices affecting the landowner and the public."

Interpretation

A reporter's interpretation is that the guidelines do not now have the force of law behind them . . . but that farmers against whom complaints are lodged will be judged according to compliance with the guidelines. The most widely-applicable portion of the guidelines, concerning the recycling of manure through crops, is as follows:

1. No field spreading is to be done on frozen or snow-covered ground except on upland soils of no more than 3-percent slope. Rate of application on snow or frozen ground must not exceed 250 pounds of nitrogen per acre, or the rate shown in the tables by soil type. When the rate in the table is lower, the lower rate applies.

(Editor's note–The tables referred to list every soil type found in the State of Maine, and for each the maximum acceptable disposal rate of manure per acre by spreading or irrigation. They also indicate the acceptability for each soil type of manure piling, burying, composting, or creation of leaching beds.)

2. Commercial fertilizer containing nitrogen must not be added to the application in such a way that it would increase the total nitrogen application, in any given year, above the figures shown for recycling.

3. No manure or manure sludge is to be applied within a distance of 25 feet from the high water mark of any body of water.

4. No manure or manure sludge is to be applied within a distance of 100 feet from wells, springs, ponds, lakes and marine waters.

5. Periodic tests for nitrogen content of manure should be made.

6. Spreading should not be done on fields adjacent to ponds, lakes and marine waters when there is the probability of water pollution from runoff.

7. No spreading is to be done on slopes steeper than 25 percent.

8. Spreading should not be done within the high water mark of the field depressions or highway ditches that carry running water during snow melt or heavy rainfall.

Cooling—As dairy herds have grown in size, dairymen have tended to fill their existing bulk tanks nearer to capacity . . . rather than buy new, larger tanks. This has created problems of overloading the capacity of tanks to cool milk rapidly enough . . . with accompanying problems of rancidity, churning, etc.

One solution is to use a plate cooler, or tube cooler, to drop temperature of milk on its way from milking area to the tank.

Dairy Housing — An intensive look at dairy farm facilities, systems and equipment will be taken February 6, 7 and 8, 1973, at a National Dairy Housing Conference at Michigan State University.

At this meeting, the first of its kind, more than 50 speakers from 20 states and Canada will report their latest observations and research on housing, feeding and milking systems, environmental control, manure management, codes and regulations, economics, and herd health. A down-to-earth approach to on-the-farm problems will be stressed.

The conference is sponsored by the American Society of Agricultural Engineers, in cooperation with 14 industry, professional and governmental groups from the United States, Canada and Europe. For registration information, write to: James Boyd, Agricultural Engineering Department, Michigan State University, East Lansing, Michigan 48823.



"I just hit buttons to feed my cows," says Frank Santini

Eastern dairy farmer favors Patz feed handling equipment

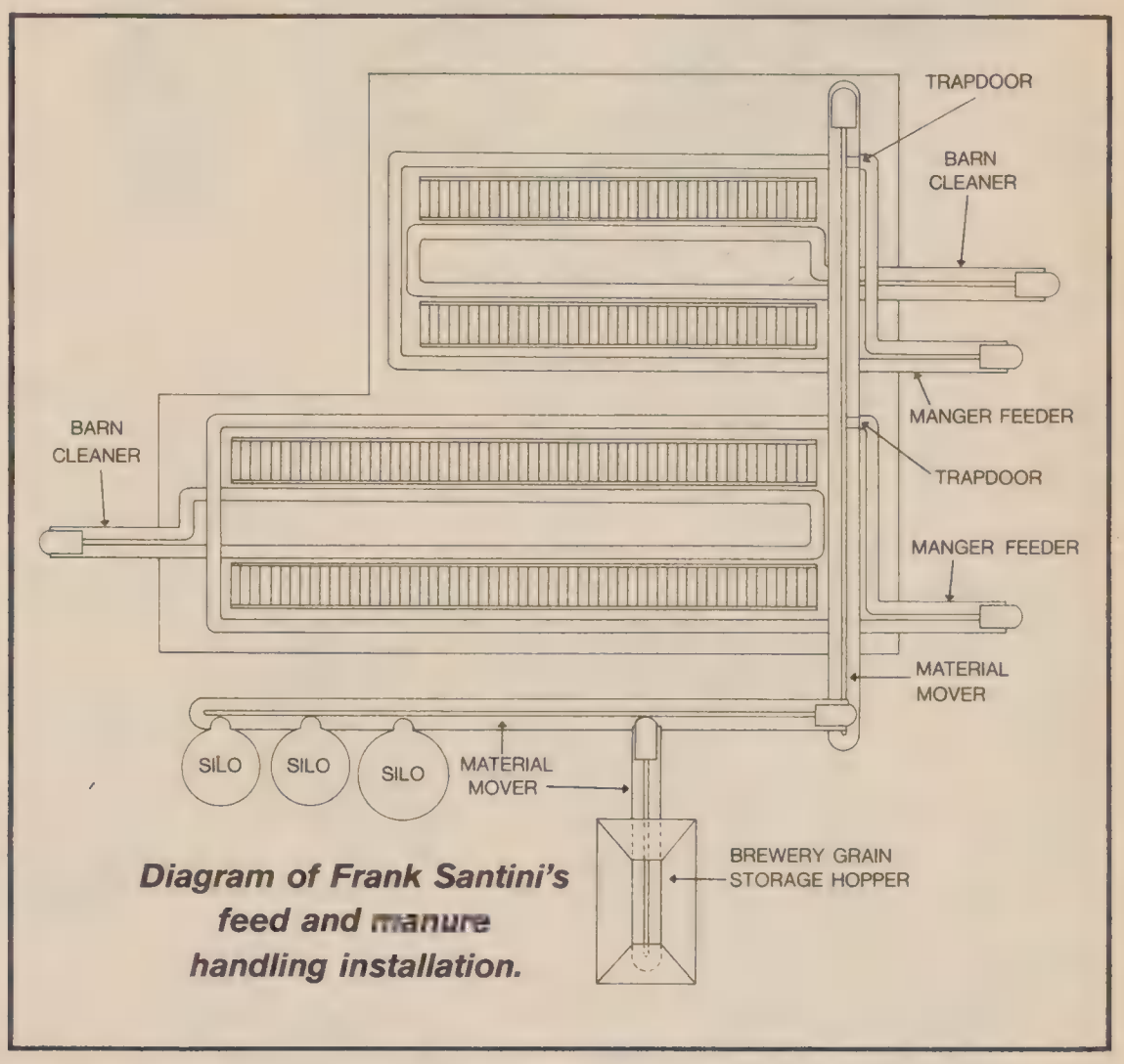


Diagram of Frank Santini's feed and manure handling installation.

After years of shoveling feed to his cattle, Frank Santini of Phillipsburg, New Jersey has decided to use automation.

Thanks to two Patz silo unloaders, three Patz material movers and two manger feeders, the Santini's are now able to feed their 200 Holsteins — and milk them at the same time. Mr. Santini's new Patz feed handling system also eliminates costly hired help. "A man to feed these cows would cost me $8,000 a year," he figures. "By installing the new system, I've eliminated that annual expense. Now I just hit buttons to feed the entire herd at one time while we do the milking."

Mr. Santini has found that the use of nearby brewery grain improves his dairy profit picture. Corn silage is delivered from three silos to a Patz material mover which runs below the silo chutes. Brewery grain is moved from a storage hopper onto the silage by a second material mover.

This feed mixture is carried up and dropped into a third material mover which crosses the barn above the cattle. Two dropouts in this unit deliver the feed to a pair of manger feeders installed in the stanchion barn.

To round out his inventory of work-saving equipment, Mr. Santini employs two Patz barn cleaners with one slide coming out each end of the barn for removing manure.

"I've always liked Patz equipment," says the dairyman with understandable pride.



One end of Mr. Santini's barn with a Patz barn cleaner in front of two manger feeders.

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Chick Raskin is enthusiastic about the spray sheathing that converted this typical double-deck poultry house into a windowless building. Job was only partially complete when this photo was taken.

Home of happy hens

by Charles Stratton

"A family-type farm gone big" accurately describes Raskin Farms, Marion, Connecticut. Over the past 36 years, owner Abraham "Chick" Raskin has built up a highly integrated poultry operation that now covers 17 farms and includes one of the most modern table egg processing plants in the Northeast.

In the process of expansion, he has become Connecticut's largest independent poultryman, and his colorful slogan . . . "Hen Fruit from the Home of Happy Hens" . . . is carried on some 20 trucks making regular deliveries throughout the Hartford to New York City area.

Raskin has a total of 350,000 layers (75,000 on the home farm) and a 100,000-bird replacement rearing program. About 75 percent of the layers are Leghorns, the rest Sex-links. He depends on such table egg strains as A26 Arbor Acres, Harko, DeKalb, H & N, and Hi-Line.

Birds are raised from day-old on isolated farms, some under contract, then go into a variety of laying houses on both Raskin-owned and contract farms. Some go into cage and others are floor birds. Raski likes large pens and mechanica equipment so it is only necessar to pick eggs and clean waterers.

When market conditions warran birds are force-molted after eight o nine months of laying through combination of restricted diet an lighting. Birds reach maximum pro duction again after an eight-wee rest period. Fowl sales are no prob lem, as dressing plants bid direc for large flocks.

Eggs are delivered daily to th central egg processing plant at th home farm, and are processed an cartoned in the 80-case-per-hou Egomatic grading equipment. Raski bought the first large-scale grade of its type right off the floor at national poultry convention. H policy has been to update processin and packaging facilities every fou years. The entire farm is backed b emergency power equipment.

Fresh!

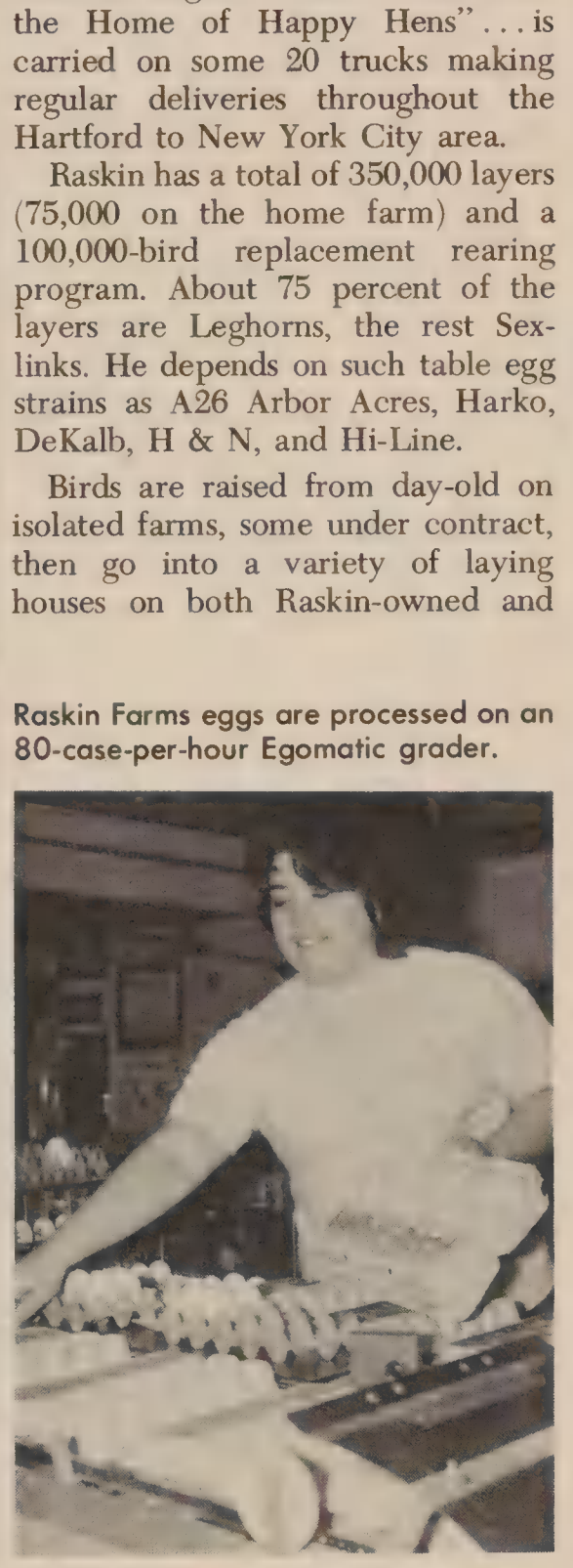
Raskin puts top priority on fres ness. Vehicles used to transport eg include six 350-case vans and tw smaller vans carrying between and 70 cases.

Raskin Farms also emphasiz service. "This is not just idle talk comments Chick. "Pleasing the cu tomer is very important and mea our success. We go all-out for se vice and good will."

He has been in charge of sales a has a personal relationship with t buyers. Instead of selling exclusiv to a large chain, he sells to sm area chains (largest is ten store independent groceries, jobbers, h pitals, schools, restaurants, and stitutions within a 60-mile radius.

Trends and sales patterns are ca fully watched through his office counting system. Each customer h a card on file. Cards are check daily. This helps spot trouble, mi mizes accounts receivable, acts a reminder of previous sales, a

Raskin Farms eggs are processed on an 80-case-per-hour Egomatic grader.



anticipates a customer's needs. Cards also indicate when a customer's egg sales are slipping. Although deliveries are made two or three times weekly, Raskin Farms will deliver a special order when the customer anticipates a shortage.

Salesroom

Disturbed by the unprofitable economics of selling cracks and rough-shelled eggs, Raskin opened a home farm salesroom to sell to the public at bargain prices. However, he has no intention of competing against his wholesale customers, and does not encourage the sales of graded, cartoned eggs in the salesroom.

Chick Raskin, who started as a 4-H'er, isn't forcing his two sons into the business. Joel studied for a year at the American College in Jerusalem and will graduate from the University of Connecticut this year. Steven is now 14. Both boys learn each job on the farm so they will know the business thoroughly and be able to take charge intelligently.

"No job is too dirty," Chick says. "I treat them like any other employee. They get their orders from the department boss. I don't interfere or tell them what to do. If they decide to go into some other business after they complete their formal education, they will always have a thorough training in agriculture to fall back on."

Labor

This poultryman credits much of his success to his employees and contract growers. "Capable labor eliminates a lot of problems," he claims. Male employees live on the farm; women employees are transported to the farm. Outside farms are on contract, rented, or Raskin-owned. Detailed weekly reports keep him informed about all farms.

All Raskin Farms delivery and maintenance vehicles are repaired in the farm's maintenance shop. Earlier, trucks were repaired at a commercial garage, but cost was prohibitive. Raskin estimates it cost $10 just to get a truck to the garage.

Maintenance

Maintenance and remodeling of farm buildings is another area in which Raskin is cost-conscious. Several years ago, he saw the possibilities in spray-sheathing the dozens of buildings of all types and sizes used in his table egg program. After thoroughly investigating the process, he purchased the equipment and several farm employees were trained in its use.

Basically, the sheathing material is a combination of two chemicals applied under heat and pressure. Within seconds after spraying, the material expands to thirty times its original thickness.

Raskin urgently needed additional refrigeration space for temporary egg storage. He moved 4,200 floor birds out of a nearby poultry house, thoroughly cleaned and sanitized the building, and sealed it inside and out with the insulation material. Three Kramer cooling units were installed outside, and a partition was added to divide the single pen into two compartments for either freezing or temporary storage.

Within ten days, Raskin had 6,000 cases of eggs stored in the new cooler. Later, the exterior was sprayed with a protective coating of asphalt-base aluminum paint to waterproof the sheathing and act as a vapor barrier. No protective coating was needed inside the coop where material is protected from the weather.

Special

Ordinarily, only the outside of the poultry coop is sprayed. Conversion of this coop into a refrigerated egg storage was a special situation requiring the insulation thickness on both interior and exterior.

According to Raskin, the only maintenance required on a sheathed building is a spray coat of paint every seven or eight years. "Once sealed like a package this material will last forever." he says. "It isn't cheap, but it's good. It sticks to any dry surface and makes for low-cost building maintenance. It will make an obsolete building look good as new."

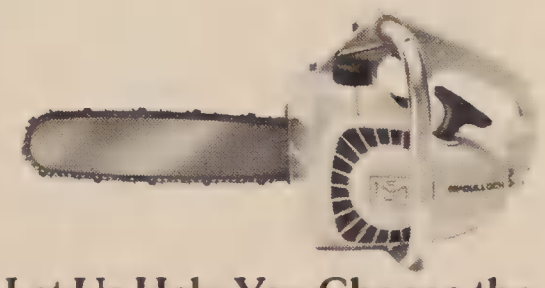
The equipment, however, is not for everyone. It costs around $20,000 to get started. Heated lines and a lot of electric power are required. Raskin carries his own portable generator.

Enthusiastic about a new technique that he believes may well solve the dilemma of constant maintenance of farm buildings, Raskin is also basically optimistic about the poultry business. Though he admits he did not want to expand, he claims that opportunities are now better than ever if properly capitalized and feels that he now has the volume and buying power to ride roller-coaster egg markets.



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		Mini Mac 1 Automatic		7.1 lbs.**	1.7 cu. in.	12"	$119.95*
		Mini Mac 6 Automatic		7.2 lbs.**	1.7 cu. in.	14"	$129.95*
	The Super Light-weight Pro	Power Mac 6 Automatic	Heavier do-it-yourself jobs; orchards; fire wood; building.	6.9 lbs.**	2.0 cu. in.	14"	$159.95*
	The Tough Saws for the Toughest Jobs	Mac 10-10 Automatic	Timber; extensive orchards; fences, building projects.	12.5 lbs.**	3.3 cu. in.	16"	$184.95*
		New Pro Mac 60		13 lbs.**	3.8 cu. in.	16"	$229.95*

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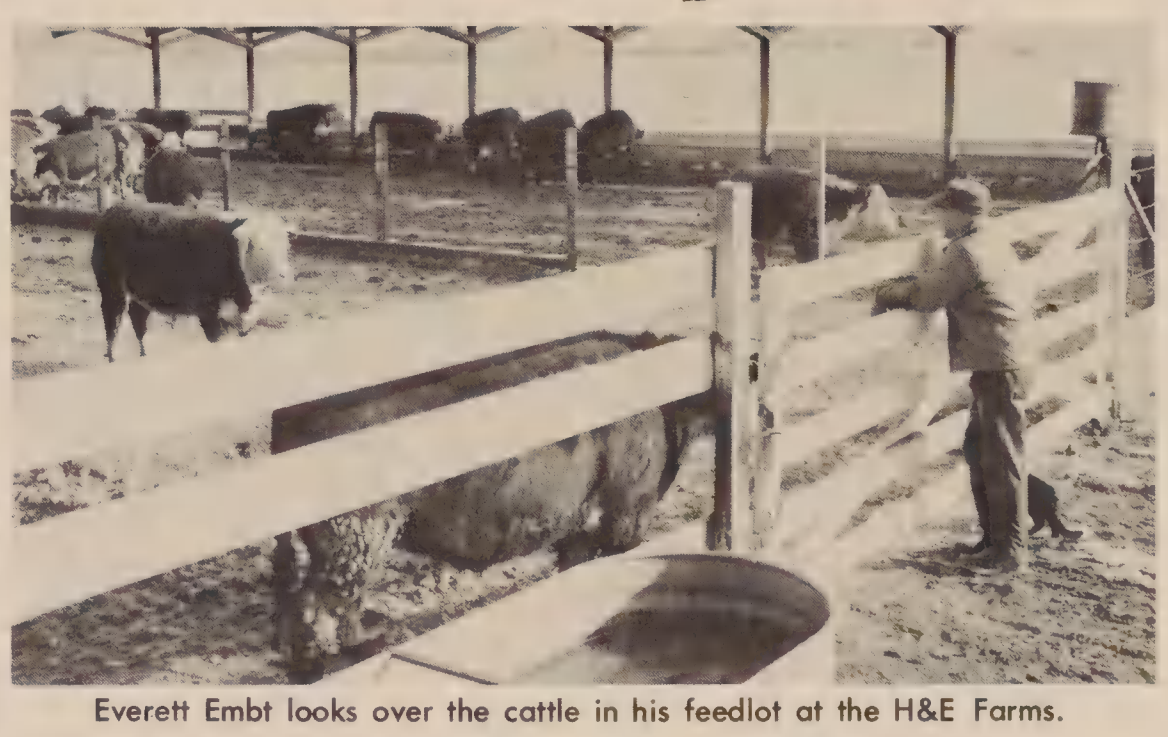
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Everett Embt looks over the cattle in his feedlot at the H&E Farms.

CATTLE FEEDER

Not far from the village of Albion, New York, is the beef-feeding operation known as the H&E Farms . . . run by Everett Embt and his son-in-law Harold Hazel. The feedlot capacity is 250 head, and five batches are run through in a three-year period.

"The feeder cattle we have now came in at 700 pounds," Everett comments. "We've never bought them under 500 pounds in weight." Generally, they'll gain in weight at about two pounds per head daily, and are topped out and sold at a weight of about 1,100 pounds.

Everett has fattened out several different breeds of beef cattle, and even some Holstein heifers . . . but he prefers Herefords. The exotic breeds don't excite him as a feeder, although he has had some in the feedlot. Feeder cattle have come from many places over the 15 years cattle have been fed here . . . Texas, Nebraska, Wyoming and Virginia.

"As soon as cattle arrive, we try to fill 'em up with water and good hay, and get them bedded down," Everett says. "We watch them closely; if runny noses and coughs develop, we use a sulfa medication in the drinking water."

Roughage

A lot of roughage is fed at H&E Farms, especially corn silage but also some haylage. "We can't profitably put 'em on a full-draft ration of corn grain," Everett comments. "We usually buy feeders on a reverse margin . . . having to pay more per pound for them than we'll get when they're finished. In the past few years, that margin has varied from plus two cents per pound to minus six cents.

"We figure a full-feed program on corn at $1.50 per bushel will give a cost of 30 cents per pound of gain. By using corn silage, this can be reduced to 12-14 cents . . . or even down to 10 cents by using DES. Of course, a high-silage diet requires a two-percent longer feeding period than would all corn grain."

DES (diethylstilbestrol) cannot be used in livestock feed after January 1, 1973 . . . and Everett questions whether it's practical for H&E to gear up with the handling facilities for using hormone implants. "We'll drop 10 percent in our efficiency of gain from losing DES . . . and the feeding period will be lengthened by one-fifth," he comments.

Added Corn

High moisture shelled corn (HMSC) is added to corn silage at the rate of five pounds per 1,000 pounds of body weight per day . . . and the mixture is before the animals at all times. "I'd guess they eat 30-35 pounds of corn silage per animal per day," Everett reports. Urea and soybean oil meal are used as protein supplements. There are 200 acres of corn grown most years on this 500-acre operation (100 of it rented land).

Experience at H&E Farms indicates at least two essentials when storing HMSC . . . a roof on the silo to prevent excess water getting into the grain, and a silo unloader. If the grain is thrown down by hand, walking on the mass of grain creates a situation where mold develops . . . and a man with a scoop shovel may not remove a uniform-depth layer each time (as an unloader will do). — *G.L.C.*

SELLS TO STORES

Clifford Toenniessen of Lockport, New York, has a marketing system for his fruit that moves him one step closer to the consumer than is typical of most fruit growers.

First of all, he sells no processing apples . . .. in fact, he's pushed out a substantial number of trees of processing varieties. "I think the processing-fruit industry needs state or federal marketing orders to bring more orderly conditions to the supply side of the marketing equation," he comments. "Somehow, both the fruit and vegetable industry need to find effective ways to exercise some control over the quantity of product being marketed."

To Stores

Cliff specializes in selling fruit to stores in the Buffalo area. His father and mother operated a "superette" for 14 years in the same area, so he is well acquainted with

(Continued on next page)

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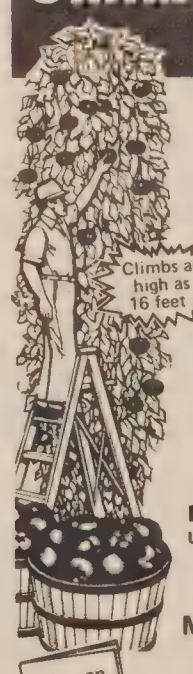
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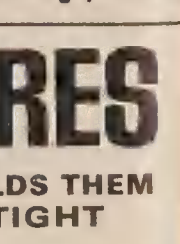
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th needs of grocery-store managers. H does not now market to large ch ins, but to individually-owned st res or small chains . . . his smallest "d op" is 50 cartons per stop.

'Buyers from the big chains want 1,(00 packages this week . . . and no e the next. This raises heck with th efficiency of organizing a packing lin . . . . I prefer to sell to local st es that want a predictable amount we k after week, and aren't out sc uring the market constantly to get ap les a few cents cheaper from so ewhere else.

'I try to understand their business, an help solve their fruit-merchandis ng problems," he says. "I have no objection to a substantial price ma kup by the store . . . if I'm making a profit, too. I'm just as much co cerned about **him** making a profit, as I am about my own profit. If **he** do sn't make money on our arrangeme t, then my apples won't get into his store.

Pri rity

'My first priority is on packing an selling apples . . . getting them pa ked right is a major consideration. W also have a retail roadside market that handles about 15 percent of ur total volume. There are many roa lside stands in our area, and this pu s a lot of competitive pressure on prices.

'Some fruit goes to 'U-pick' customers, but this is limited in our op ration. A grower has to be fully set up for this kind of marketing to ma e it successful . . . and we find a better final margin from sales to sto es."

As chairman of the International Apple Institute, Cliff has an opportunity to become acquainted with apple marketing across a broad geographical spectrum. Over the years, he had processing apples . . . sold to major chains . . . had a roadside stand . . . and operated a "U-pick" setup. But with his knowledge of the intricacies of successfully serving independent supermarkets, he finds that route pays best per dollar and hour invested. — *G.L.C.*

KEEPING HELP

Of all the farmers' laments that have been heard over the years, none is more consistent than the one about the unavailability of competent hired help. I got to visiting recently with a man who I knew has been unusually able to keep people on his farm for long periods, and here are his answers to some questions:

What kind of track record do you have, anyway?

Well, first of all it should be clear that I have an arrangement where a man leases my farm on shares . . . he's not really an employee. The first man was with me 19 years, the second 20 years, and the one with me now has been on the farm 5 years. The 20-year man has reached an age where he retired, but he still works quite often as an employee on my farm . . . says he enjoys it.

What are some of your thoughts on getting along with these folks?

I think one must be careful in making the initial selection. The couple chosen must be people in whom you have confidence in their integrity and ability.

I don't live on the farm and therefore don't see everything that goes wrong. The logistics might be different with a regular employee, but the principle applies . . . don't look over his shoulder every second and climb all over him when he goofs. If he has to be watched that closely, you shouldn't have hired him in the first place.

In my arrangement, mutual confidence is a must . . . there can be no suspicion of each other if it's to work. We consult on many management questions . . . and I'm not bashful in stating my opinion . . . but he always carries the ball.

To me, the important number appears in the lower right-hand corner of the operating statement. If that remains at a satisfactory level, I don't ride herd very closely on everything done on the farm. If he starts doing something a different way than I'd do it, I leave . . . rather than nit-pick our business relationship to death.

Sounds as though he can do as he darn well pleases.

Now don't think I'm lackadaisical about the whole thing. We both sign a 6-to-8 page contract that spells out our financial arrangement in considerable detail. Each of us knows exactly where we stand as far as the business between us, and it's spelled out clearly in writing.

We settle up financially every month, while the details are fresh in our minds.

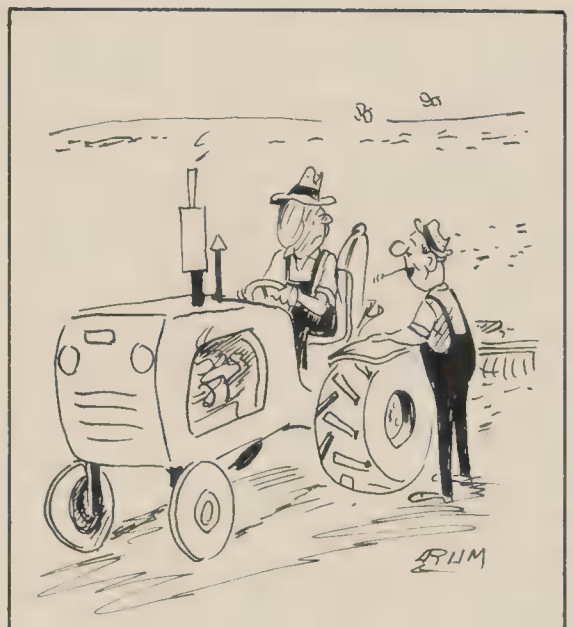
What about building the self-esteem of the man who share-leases your farm?

He pays for nearly all expenses with checks that **he** signs . . . I give him total recognition as far as the community is concerned. Of course, I write the checks for such things as taxes, lime, and major building repairs.

One year for a few months, I paid half the cost of additional hired help on the condition that the man leasing the farm attend a lot of farm meetings . . . Extension, DHIA, Farm Bureau, etc. It seemed like an incentive to expand his management ability, and at the same time offered some opportunity for recognition.

What about his wife?

Every fall, I have said to her, "What can we do in the house?" As a general rule, a successful farm has to have a wife interested in helping her husband make the farm successful. Don't ever try to leave her out of the picture if you want to keep the husband on the farm. — *G.L.C.*



"You're lucky you can stay home –what if you had to go working like other women?"

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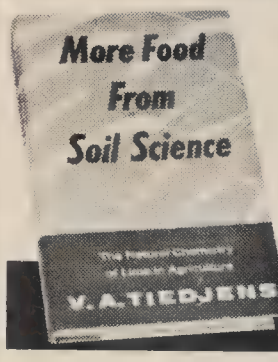
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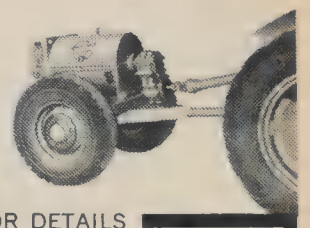
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Donald Hazelton and his sister, Carol Bessette, show the super-size apples grown at H & M Orchard.

Vermont's H & M Orchards grow

Super apples

"**STAY** small or get big, but don't get caught in the middle," advises Donald Hazelton. He does the orchard work at the H & M Orchard, Dummerston, Vermont. This orchard stayed small, but specializes in big apples that retail at 10 to 15 cents each.

The 15-acre H & M Orchard is a partnership between Donald's father, Merton, who sells the apples, and E. V. McKay, who does the final bookkeeping. McKay originally bought the farm and is now half-owner. Donald is aided by his three sons: David, 19; Steven, 18; and Ted, 14. His wife, Caroline, helps his sister, Carol Bessette, in the orchard's small packing plant.

Several trends have been noticed here. "Our customers don't want poly bags," Donald says, "and they're no good for big apples. We bought some and still have them." Cooking apples have also gone down in popularity, and more of their customers want eating apples. However, Donald warns that growers must be willing to put extra effort into the fruit or they'll get poor quality and buyers will be turned off.

Not so with H & M apples. A good 3-inch Spy is in demand locally and retails for 15 cents. Delicious are sized at 2¾ inches for 10-cent sales, and a McIntosh also retails for a dime.

One grocer in Keene, New Hampshire, sells about 20 bushels per week of H & M's fancy 10 and 15-cent apples; 90 percent of the sales are single apples to individuals. About 15 boxes of the apples are displayed in front of the store. Passing college students and businessmen select from the mass display and are willing to pay the price for a good eating apple.

Deliveries

Merton Hazelton services independent grocery stores and roadside stands from White River Junction, Vermont to Hadley, Massachusetts. No extra apples are put on the truck. Through years of experience, he knows each customer's apple needs and delivers accordingly. The storekeeper buys with confidence. The Hazelton rule is: "The storekeeper is the final boss."

Besides routine deliveries, stores also pick up their orders. In some cases during harvest, either the orchard delivers or the customer picks up at the packing plant, depending on "who has the most time."

The most common early and late varieties are grown. A deer fence eliminates orchard expansion and most trees are from 25 years old down. Baldwins have been replaced. Older trees are being replaced at the rate of about 50 trees annually with semi-dwarfs for easier picking.

Thinning

Large apples are no accident in this orchard. It's thinning that does the trick. This grower finds that spray thinners like Sevin and Amid-Thin are a great help. Some varieties require additional hand-thinning. "Thinners are applied according to recommendations," Donald says, "plus a little guesswork in between to fit our own locality. It also depends on when we get around to it."

He claims hand thinning makes the big difference, although it comes during the busy strawberry-picking season. Grape shears are used to space apples about a foot apart on limbs. "Thinning is good practice for young help," Donald comments.

(Continued on next page)



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"It gives them ladder-handling experience when branches are tender."

Over 8,000 bushels of apples are picked by the family and some local help. Carol Bessette does most of the grading and selling at the plant. There are no mail order apples. Some 1,800 boxes of gift apples are custom-packed for out-of-state firms. Unlike most orchards, H & M prepacks no fruit for retail customers.

"Most people that drive up aren't in that big a hurry," Donald says. "They're glad to let us custom-pack their requirements. We retail in sizes from a half-peck to a bushel. All our delivered apples are sold in the old-fashioned wooden box."

Strawberries

Don't ask the Hazeltons how to grow strawberries. According to Donald, his dad has been raising strawberries the wrong way for fifty years! Growing strawberries on potato ground is not recommended, but Merton uses potatoes to condition the soil for the following strawberry crop.

The Hazeltons pick between 20,000-25,000 quarts of strawberries annually from three acres, putting in a new acre-and-a-half bed each year. A premium-priced crop of Green Mountain potatoes is sold direct to customers from the small garage packing plant next to the orchard salesroom.

Local youths and U-pick customers harvest the berries. Apples are mostly picked by the Hazeltons, as bruised fruit costs real money here.

Their sugar grove averages 1,800 taps and some 500 gallons of syrup annually. No mail orders for that, either. Most of the syrup is retailed; only about one-fourth is sold wholesale.

Dingus

A dual-purpose invention that Donald Hazelton calls a "dingus" comes in handy for both U-pick strawberry customers and for trucking boxed apples to market. Dingus is nothing more than an apple-box-wide shallow box . . . made of scrap lumber . . . placed upside down over each box of apples on the truck. The next box fits on top without bruising the fruit. The dingus is notched on both sides so boxed apples won't slip or slide sideways.

This device is used two ways when handling strawberries. When berries are being picked or stacked for market, each dingus holds six one-quart baskets and protects the berries from being crushed.

For U-pick customers, a certain type of six-quart beer carton, with capacity for six quarts of picked berries, fits into the dingus. At checkout, the strawberry-filled carton is simply lifted out and given to the customer who picked it. This method eliminates the extra cost of strawberry baskets.

In summing up the H & M Orchard sales program, Hazelton says, "We're staying small, If we expanded the orchard, we'd have to hire extra help and buy more equipment that we'd use only a small part of the time. When we handle our own fruit sales we can get a steady price, regardless of whether the market is up or down."

Conference – On February 20 and 21, the seventh annual New York State Processing Vegetable Conference, covering topics of interest to both growers and processors, will be held at the Sheraton Motor Inn, Canandaigua, New York.

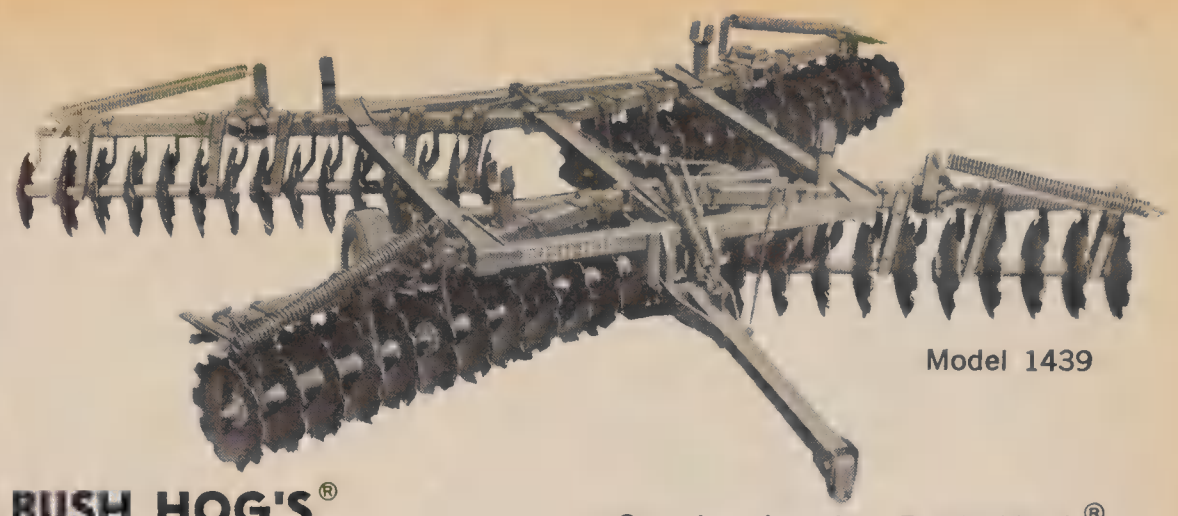
Individual crop sessions will deal with snap beans, red beets and cabbage, and there will be a general session on pest control and pesticides. The evening program will include a talk by Dr. Keith Kennedy, dean of the College of Agriculture and Life Sciences at Cornell University.

For further information, write to: Robert F. Becker, Conference Chairman, Hedrick Hall, New York State Agricultural Experiment Station, Geneva, New York 14456.



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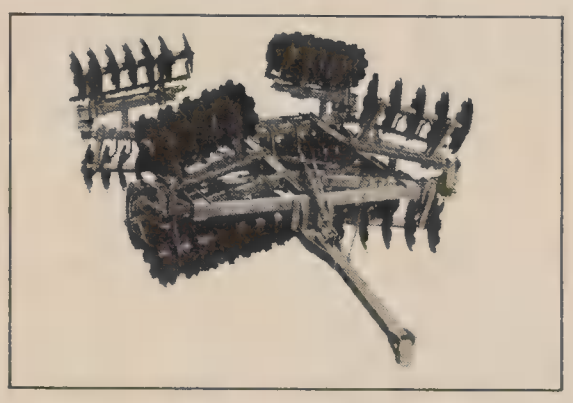
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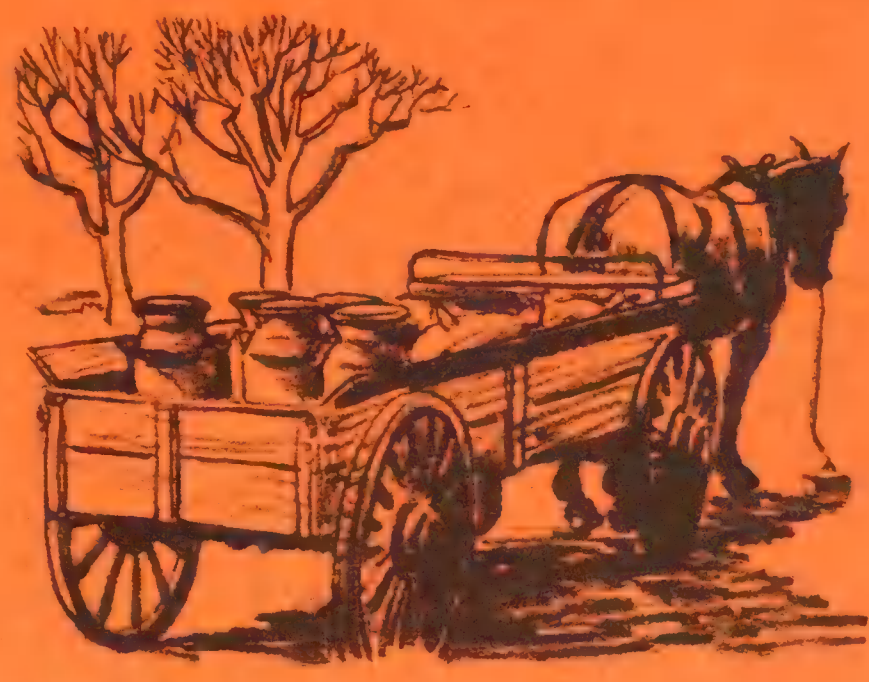
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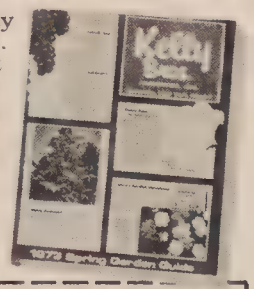
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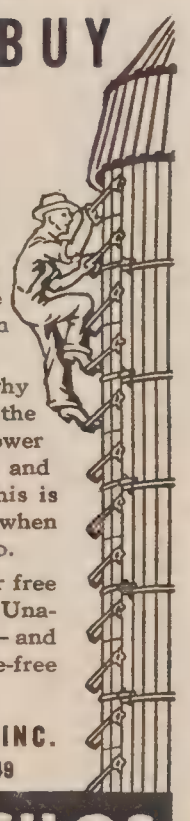
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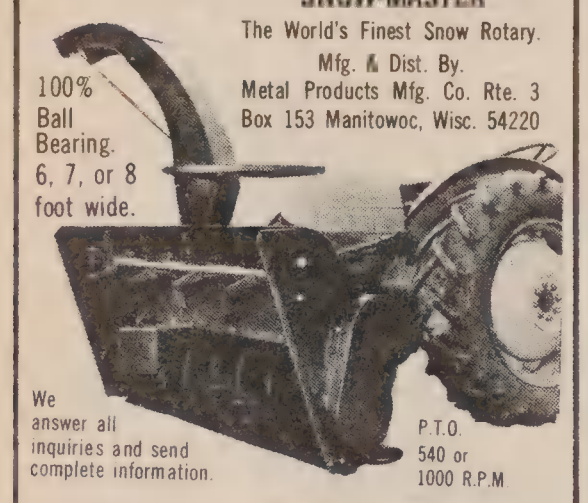
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Dollar Guide

For The Northeast Farmer

REAP (Rural Environmental Assistance Program) has been terminated. Many farmers think of this program as ACP (its former name)... providing federal cost-sharing fund for ponds, woodlot improvement, diversion ditches, tile, lime, and many more. Unless a huge ground swell of protest develops, and Congress takes strong action, no federal funds to encourage these practices will be available.

MILK PRICES in the Boston Regional Order area forecast up by 38 cents per cwt. in 1973 by New England Price Forecast Committee. Average of $6.92 blend price is forecast (3.5 percent fat, at plants in 201-210-mile zone).

Predictions for some months: January, $7.10; June, $6.10; October, $7.50; December, $7.15.

EGG PRICES for 1973 are expected to average 42 cents per dozen, 7 cents above the 1972 average. Poultry feed costs for the first 9 months of 1973 forecast as 3 cents per dozen higher than '72.

Breakdown by quarters of 1973, from first to fourth, shows predicted egg prices per dozen to be 45 cents, 37 cents, 43 cents, and 44 cents.

CLASS I MILK SALES were up in every month except April during 1972 as compared to 1971 in Boston Regional Market ... and this in market already having highest per capita consumption of whole milk in U.S.

SIGN-UP for government programs involving wheat and feed grains will begin February 5 and end March 16. Estimated set-aside of 24-26 million acres in 1973, 12 million less than last year.

National average loan rate on corn is set at $1.08 per bushel.

SOCIAL SECURITY contribution for self-employed is 7.5 percent for 1972 (on earnings up to $9,000) ... up to 8 percent in 1973 (on $10,800), and the same rate on earnings up to $12,000 in 1974.

Employer-employee rates are 5.2 percent each in 1972 ... going up to 5.85 percent in 1973.

Retired person can now earn $2,000 annually without losing benefits.

USDA RECOMMENDED DECISION is forthcoming on NEDCO-Dairylea proposal in Federal Order 2 (NY-NJ) for a flat-rate bulk tank service charge of $1.50 per farm stop ... and an increase of 5 cents per cwt. in the transportation credit on bulk milk used for manufactured dairy products (up to 15 cents from present 10 cents).

WOOL PRICE-SUPPORT program will be unchanged for 1973 ... with incentive price 72 cents per pound. Payments to producers on the 1973 calendar year marketings will be made beginning April, 1974.

HAY SHORTAGE is severe in Northeast, reports Sperry New Holland, after survey of the region's county agents. Average loss of 17 percent below 1971 hay-production figures were recorded.

MILK has a good image to overwhelming majority of Americans, reports United Dairy Industry Association after 3,500-person nationwide survey by impartial polling organization ... 97 percent had a favorable impression of the healthfulness of drinking milk.

MILK INVASION from other federal orders is worrying producers in Order 2 (NY-NJ). There were 64 million pounds of fluid milk coming from other orders allocated to Class I use in 1971, but that volume in last half of 1972 jumped by 82 percent over year earlier... some from as far away as Minnesota.

GRATES in milking parlors create problems in drainage fields and are not recommended ... according to Vermont county agent John Stephenson. Instead, he suggests no grates, and no thresholds on the milking parlor doors ... so a pushbroom can be used to move droppings into the holding area.

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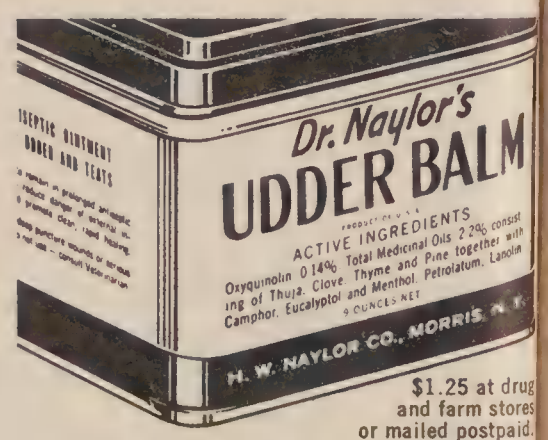
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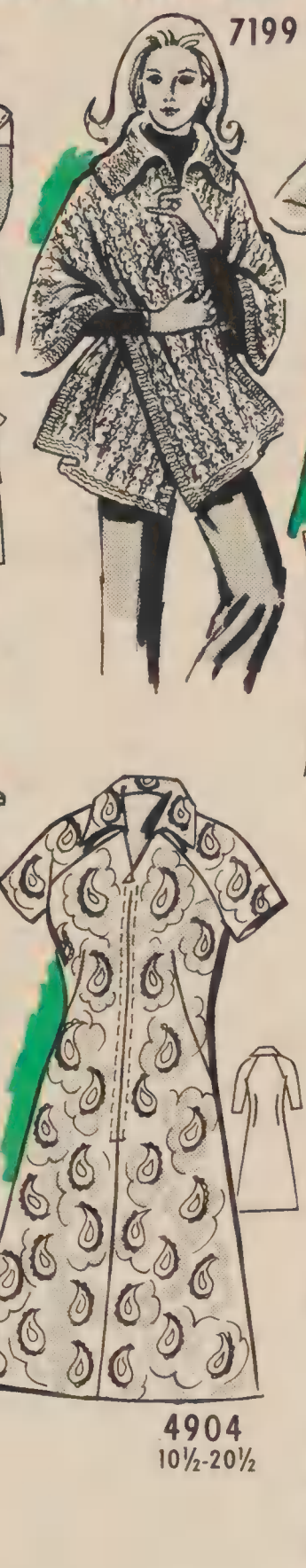
9421. Curving pantsuit or dress. PRINTED PATTERN, New Misses' Sizes 8-18. Size 12 (bust 34) pantsuit 2½ yds. 60-in. fabric. . . . . .75 cents

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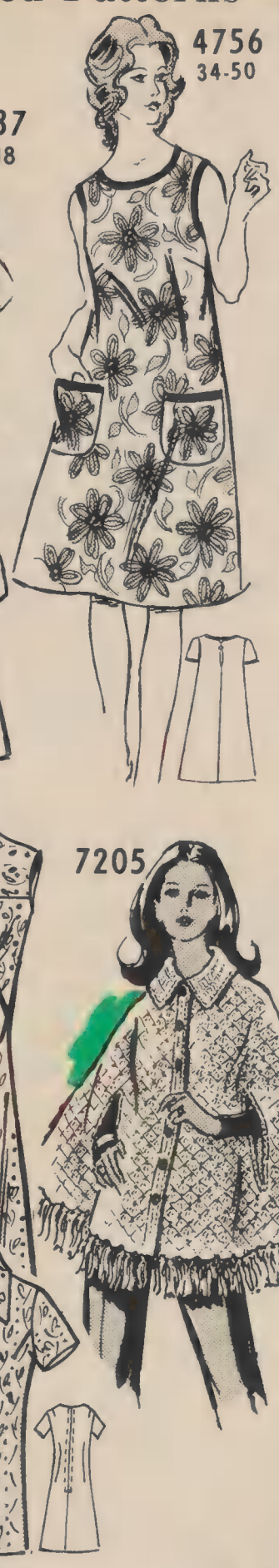
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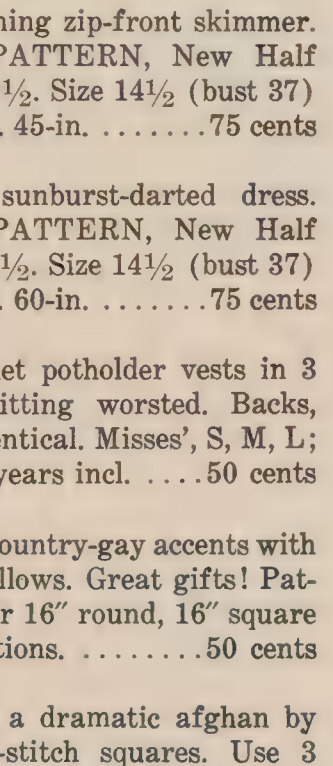
928. Create a dramatic afghan by joining shell-stitch squares. Use 3 colors of worsted. Crochet directions, color schemes. . . . . .50 cents

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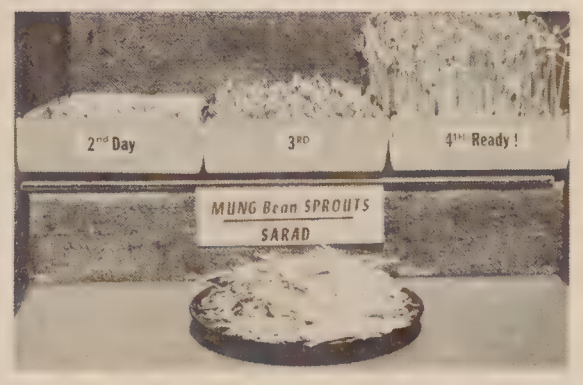
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AROUND the HOUSE

Imagine raising a crop in just 4 days! Have fun watching these bean sprouts grow and then use them in a salad in place of lettuce, cabbage, etc. For more information about this Sarad (Oriental Salad) Kit, write **Magic Garden, P. O. Box 4104, Fort Lauderdale, Fla. 33304.**



Stow-aways from **West Bend.** This space-saving cookware set is ideal wherever storage space is limited. The detachable handle is used for both sauce pans and the 10″ skillet, which nest together neatly for storage. Set retails for about $25.95.



Photosun sunglasses that automatically adjust their tint to the brightness of the day are now available nationwide, according to **Corning Glass Works.** The sunglasses are darkest on bright, sunny days and become lighter on dull, cloudy days, also at dawn, at dusk and indoors.



Foley Manufacturing Company, maker of the new two-cup measuring cup fitted with a juicer has included milliliters units on the cup along with the customary cup and ounce markings.

Those people who prefer to cook with gas may be interested in this new Kenmore Dual-Fuel Range from **Sears.** The cooking units are gas burners, and the oven is self-cleaning electric, with a Roast-a-Matic meat probe to prevent overcooking of meats.



Storing staples in original containers gives kitchen cupboards a hodgepodge look. Instead, save quart jars such as mayonnaise comes in and empty cornstarch, tapioca, macaroni, rice, etc., into clean, empty jars. Add labels telling what each jar contains and place in neat row on shelf.

You'll have scads more room and have a much neater looking cupboard, as you can see for yourself. You'll also be able to tell when any supply is getting low. An added suggestion – keeping spices in rack on inside of door gives extra cupboard space, too. *Louise Price Bell.*



This family room was hard to heat because it was built on a concrete slab and air ducts had to be located in the ceiling. The electric baseboard heaters have a wall thermostat that enables the heaters to be turned off when room is not in use, saving on utility costs.





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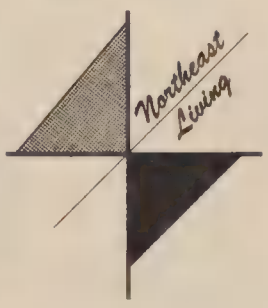
Send 75 cents for Needlecraft Catalog to **AMERICAN AGRICULTURIST Needlecraft, Box 42, Old Chelsea Station, New York, New York 10011.**

GARDEN TALK

by George and Katy Abraham

Mold on Plant Soils

We've been asked what to do about the greenish mold on house plant soils. Usually, the green mold on soil means that the plants aren't getting enough air. Scratch the surface of the soil with tines of an old fork. Too much water or poor soil drainage packs the soil and causes the moldy growth.



You may have to change the soil mixture and repot the plant if the mold persists. Use one part each of sand, peat and loam, with a couple handfuls of perlite or vermiculite added to give better drainage. A few pieces of pottery in the bottom of the pot will give extra drainage. The mold itself won't harm the plants, but the extra water around the roots may. Mildew and mold on leaves mean poor light, poor ventilation or both.

Old Fashioned Apples

A good many AA readers are dreaming about the old apple varieties they used to grow on the farm. Many of us still recall the **Black Gilliflower**, also called Sheepnose because that's what it looks like. **Esopus Spitzenburg** originated in Ulster County in the early 1800's. It made a nice dessert apple and was also good for cooking.

Remember the **Snow** apple? Also called Fameuse, this one came from France. It had a sweetish flavor, was aromatic and wonderful for eating out of hand. **Golden Russet** had bronzy cheeks and was excellent for dessert and cooking. How about **Maiden's Blush**? This one is pale lemon yellow with crimson cheeks and is good for cooking.

Northern Spy originated in East Bloomfield, New York, around 1800 and is still one of the best all-round apples you can get. It will be replaced by Ida Red or some other apple that doesn't take so long to bear. **Pumpkin Sweet**, also called Pound Sweet, has a decidedly sweet but peculiar flavor; it is good for baking, eating and canning.

Free: Would you like a list of the old fashioned apple varieties, with a description of each? If so, send a self-addressed, stamped envelope to: **Doc Abraham, Naples, New York 14512**, and ask for **Descriptions of Old Apple Varieties**. It also tells you where you may obtain these old varieties.

Who Has Largest Tree?

Recently the New York State Department of Environmental Conservation conducted a "Big Tree Project" survey and came up with a whopper — a 93-foot Bigtooth Aspen with a circumference of 17 feet, 10 inches and a 76-foot crown. George Sawdey of Hamlin, New York, is the owner of the tree, described by the American Forestry Association as the largest of its kind in the United States. The tree has a diameter of six feet.

Foresters measure the crown by averaging the lengths of the two widest parts of the tree above the branches. They measure east-to-west and north-to-south to get the fullness or crown of the tree. Does any one have a larger tree than Mr. Sawdey's? Please write and tell us.

Avocado Plants

Is there any way to keep these plants dwarf? Most of us wait until the avocado is tall and then attempt to shorten it. The time to cut back the plant is when it is only 6 or 7 inches tall and still in the seedling stage in a glass of water or pot of soil.

You must prune the avocado at an early age and continue cutting it back as the plant grows. If you wait until it has reached a height of 4 or 5 feet, all you'll have is a naked stem, with a couple of isolated leaves on top.

Brown spots on leaves and yellowed foliage can be due to overwatering or to poor drainage. Never use cold water for the avocado; water must be tepid or even warmish for this tropical plant.

Kitty Litter for Gardens?

Is it okay to put spent kitty litter on the garden or compost? Yes, if you scatter it around. One of our AA readers tells us his cats refuse to use the alfalfa-based litter, which is green. He says they prefer the granular clay litter. Either type of litter can be used on the compost or garden or around shrubs.

Wood Ashes Good!

Now that we're using our fireplaces a lot, don't forget to save the wood ashes. They are valuable on composts and in the garden, but keep them away from acid-loving plants, such as azaleas and rhododendrons.

It's common knowledge that wood which has been piled and air-dried for 6 to 12 months burns better than wet wood. It's lighter, provides more heat and leaves less ash. Heavier wood such as hickory, oak, hard maple and beech are best for the fireplace, although most of us are content to burn any type we can get. A standard cord of heavy hardwood is equivalent in heat value to a ton of hard coal or 200 gallons of fuel oil.

AA Garden Clinic

A reader writes, "Please tell us the best temperature for the Norfolk Island pine."

Answer — The Norfolk Island pine seems to like temperatures in the 60 to 65-degree range. Don't go over 80 degrees and never under 40 degrees, as this plant is of tropical origin.

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SOUP'S ON....

by Charlotte Bruce*

There is a vast number of people who think soup only comes in cans or foil envelopes. They are missing some very choice eating, as well as easy-on-the-grocery bill and easy-on-the-cook meals. They are also missing the fun of creative cookery that can be satisfying to the mind as well as the appetite.

In some mysterious way, the word got around that soup is difficult and time consuming to make at home. Neither is true, though there are times when I'm perfectly willing to use the canned or dehydrated variety, especially if the soup is only one ingredient of a recipe or part of a hurry-up lunch. But when soup is to be the main course, then it is hearty and homemade, a specialty of the house if you please.

One of the quickest and cheapest soups to do is potato soup. Now potato soup can taste like something served at Mrs. Meany's orphanage (when the budget is tight), or it can be flavorful and, almost as important, colorful. Here is a recipe in which you can use any kind of milk — fresh whole, fresh skim, reconstituted skim or diluted evaporated, also left-over mashed potatoes and those three hot dogs left from yesterday's lunch.

POTATO SOUP

2 tablespoons butter or margarine
2 tablespoons grated carrot
1 tablespoon grated onion
1 teaspoon salt
⅛ teaspoon pepper, preferably coarsely ground
2 cups milk
1 cup mashed potatoes
2-3 weiners, cut in thin slices

Choose a fairly heavy kettle of at least 1 quart capacity. Sauté the carrot and onion in the butter or margarine. Add the milk and heat gently. When milk is hot, add the potatoes and stir until smoothly blended. Add sliced weiners so they have time to heat before serving. This makes 3 generous servings.

Potato soup needs a crisp, colorful salad or relish plate to go with it. Fresh spinach salad, sliced oranges with a bit of cottage cheese, or crunchy apple salad would be good bets in winter.

Another Hearty Soup

Corn chowder is a great main dish for supper. Again, it is quick to do and calls for ingredients we are apt to have on the shelves. It contains a fair amount of protein and when served with carrot and raisin salad, lots of crackers and apple or rhubarb crisp for dessert, you've fulfilled a number of your daily nutritional requirements.

CORN CHOWDER

6-8 slices bacon, diced
1 small onion, sliced thin
2 cans cream style corn
2 potatoes, cooked and cubed
⅔ cup evaporated milk
2⅓ cup hot water
1 teaspoon salt
1-1½ cups Swiss or American cheese, cubed

Sauté the bacon until crisp. Remove it from pan, leaving about 4 tablespoons of fat. Sauté the onion, and add remaining ingredients except cheese and bacon. Simmer mixture for 15 minutes.

Before serving, add the diced bacon and allow time for it to heat through. Add cheese cubes to either pot or individual bowls. Serves 4 generously.

Bean Soup Senate-style

Speaking as a soup lover, one of the best things I've seen come forth from the U. S. Senate is the recipe for its famous bean soup. It is said that bean soup is on the menu of the Senators' dining room every day, and you will understand its popularity when you try this recipe. I cannot take an oath that this is the exact recipe followed in the Senate, but it is this taxpayer's version.

SENATE BEAN SOUP

Wash and soak overnight one pound dried beans in water to cover. Next morning add water to make 4 quarts. Add a smoked ham bone with some meat on it. Simmer about 2 hours or until beans are soft. Do not cover.

Add 3 medium potatoes which have been mashed, 1 cup each chopped onion and celery, and 2 cloves minced garlic (optional). Simmer 1 hour. Remove bone; cut up meat and return to soup, then season to taste with salt and pepper. Makes about 4½ quarts.

Now that's the recipe, but I would like to filibuster a bit. Pea beans are a good choice to make a succulent soup. Needless to say, the more meat left on the ham bone, the better the soup.

The real difference between this version and others you may have tasted is the use of potatoes as a thickening agent. The beans are cooked to softness but should remain whole, and the mashed potato is combined with the pot liquor until it is a smooth, thickened liquid. If you have a blender, boil the potatoes and whiz them along with some of the pot liquor and return this to bean-ham mixture.

When I get really carried away with soup making, I buy a smoked picnic shoulder and use about 5 pounds of beans and the largest cooking vessel I have available, which is the kettle of a pressure canner. Don't use the lid from the pressure canner, however, as the mixture could clog the vent and create problems when the canner is next used under pressure. A water bath canner lid covers the whole subject.



Photo: National Dairy Council

Corn chowder with pieces of crisp bacon and cubes of cheese added for flavor is hearty and delicious for a cold winter's night.

Since I am not feeding the U. S. Senate or the U. S. Navy, you can see there could be a problem with leftover soup. It is not a problem, however, but more like money in the bank, for this soup freezes well, as do most soups.

Store soup in the freezer for one to three months. It is a good idea to package it in straight-sided containers or tapered plastic ice cream tubs. Then the soup can be slipped out in a block for speedy thawing if you're not the best plan-ahead type. If you do remember to remove from the freezer in time, it is best to thaw soup in the refrigerator.

Popular Vegetable Beef Soup

The subject of vegetable beef soup is a vast one, and it's difficult to put a recipe on paper. There are some ground rules I feel are important if your soup is to be flavorful and not turn out as a friend says, tasting like water and bones.

At today's prices, I prefer to buy a boney chuck roast for soup making rather than soup bones. A butcher may give you bare bones, but he charges rather dearly for ones with a minimum of meat — so it seems to make sense to choose chuck, especially if it is on special. Cracked meatless bones can be added for their marrow and gelatin value.

For a rich brown stock, the meat should be browned in fat and I leave it in a whole chunk for the first 2 hours of simmering.

No chain is stronger than its weakest link, and no soup is better than its poorest ingredient. Vegetable soup deserves good materials, though it is a good way of getting rid of tag ends from the vegetable bin.

It is a good idea to freeze some vegetables such as green beans, corn or lima beans from the garden in soup-batch lots. They could be the more mature ones sorted from the garden run, since they can cook as long as they need to become tender. Even a small garden often yields a bit more than the family is willing to consume.

As to kinds of vegetables, I feel canned tomatoes (or fresh when in season) — not puree or sauce — are vital; also carrots, celery, cabbage, onion, potatoes and, hopefully, corn and green beans. I'm not a garlic or green pepper lover in vegetable soup. Everywhere else yes, but not here. Sometimes Worcestershire sauce is a good addition, and liquid pepper sauce can be a help too.

The amount of water you use depends on the size of the kettle you use and on the size of your wallet. If you are really stretching the meat, add more; otherwise, less. For a 3½ pound chuck roast, I would use about 5 quarts of water and 2 teaspoons of salt.

The soup should simmer, not boil. About an hour before soup is done (the total cooking time should be about 3 hours), I add pearled barley. Rice can be used but only needs to be in the pot about ½ hour before serving. I prefer both the texture and the taste of barley. Add other vegetables about ¾ hour before soup is done.

This, then, is a non-recipe and only a guide to your soup kettle creation.

VEGETABLE BEEF SOUP

3-3½ pound chuck roast
Additional bones
2 tablespoons fat
2 teaspoons salt
5 quarts water
½ cup pearled barley
1 quart tomatoes
6 cups diced vegetables (approx.); must include onion
Worcestershire and pepper sauce

Brown the meat in fat; add salt and water. Simmer gently for 2 hours or until meat is fairly tender. Add the pearled barley (it will take about an hour to become tender). About ¾ of an hour before you plan to serve the soup, remove the meat and cut into bite-size pieces. Add the tomatoes and raw, chopped vegetables. Return meat to soup. Correct the seasonings and spark the flavor with Worcestershire and pepper sauces.

ALL LACE — NO BEAUS!

by Geraldine Ross

Other folks get boy-and-gal-entines;
All I ever get is pal-entines!

*Mrs. Charlotte Bruce is Homemaking Coordinator, Adult Education for the Tompkins-Seneca-Tioga BOCES at Ithaca, New York.

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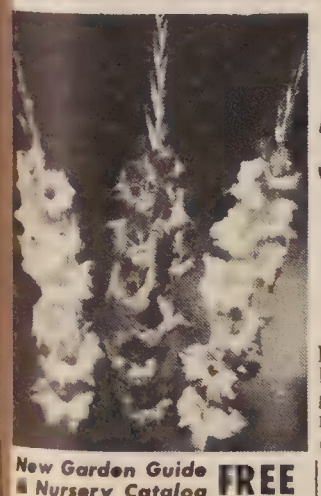
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Keep them happy . . .

When the weather is pleasant, most youngsters keep busy playing outside — climbing trees, making sand-forts, playing ball, etc. But when cold, wintry weather arrives and particularly on stormy days, most mothers are at wit's end trying to keep them happy and contented.

One good way is to keep a special toy — even something as special as their electric train — in hiding, to be brought out for their enjoyment only when the weather keeps them inside. It's surprising what an effect that will have on a couple whining little boys who have been wailing, "What **can** we do, Mother?" The train, or whatever toy you have kept hidden, will be so new to them that they will play a long time before growing tired of it.

Another good "hidden toy" to be kept for such a day is a blackboard, with two sides so two children can draw or write at the same time. And games can be used in the same way. Many mothers have found this an answer to their problem of "stormy day wails."— *Louise Price Bell*

Those Beautiful Blues!

by Geraldine Ross

Sunday still shimmered in my mind, white with a holy glow. Nevertheless, I sighed; it was Monday now. "Blue Monday," I thought, a little dejectedly.

Then I glanced up from my hot cereal, out the east-facing window. I drew a long, appreciative breath and sat erect, feeling lighter. What had so lifted my spirit was **blue**, a dozen shades of psalms-and-hymning blue!

I gazed long at the eastern horizon. The blue was a soft brightness that blessed the sky. Then my glance drifted low to the snow where the tint, reflected from all of the gradually lightening sky, was wraithlike in its touch, as though a deft brush of color had grazed the coldly crusted earth. And there were other blues, blurs of darkish beauty that were trees and crouching bushes and the dim roofs of homes in the gracious glow of very early morning.

Forgive me, I prayed, forgive me for ever associating blue with the doldrums, with desolation; it is a false concept, unjust and undeserved!

God must love blue; it's the color His sky wears most of the time. It's the feather hue of some of His brightest birds. It's the color for remembrance, as demonstrated by the winsome forget-me-not. It's the color folks see splashed on the mind's canvas when they think of seas, of lakes, of rivers, of brooks, even though water often is green or a blend of greens and grays or green flecked with sun-shot gold.

Blue is for trueness. The stirring rhyme about the flag proclaims: red for bravery, white for purity, blue for loyalty. Thus we call our tested friends true-blue. Blue is the color of the bird of happiness. Blue is the color of winning ribbons at fairs.

Many brides wear a bit of blue on their walks to the altar where "what God hath joined together let no man put asunder." Artists always favor blue for Mary's garments. And Eileen Duggan, the fine Australian poet, describes Mary calling her Son as "a soft blue stillness in the dusk; Jesus, come home. It's late."

Mist-silvered Concord grapes, Damson plums, sapphires, small girls' prettiest sashes and certain uniforms that clothe courage, these are blue. All colors sing. Some, like mourning black, can wail a dirge, but blue hymns to the listening heart. It's a proud color, a true color, a color deserving to be linked only with love and faith and joy!

I tear my gaze away from those bands and rolls and wide, deep sweeps of many-shaded blue . . . and walk toward duty with heaven in my heart.

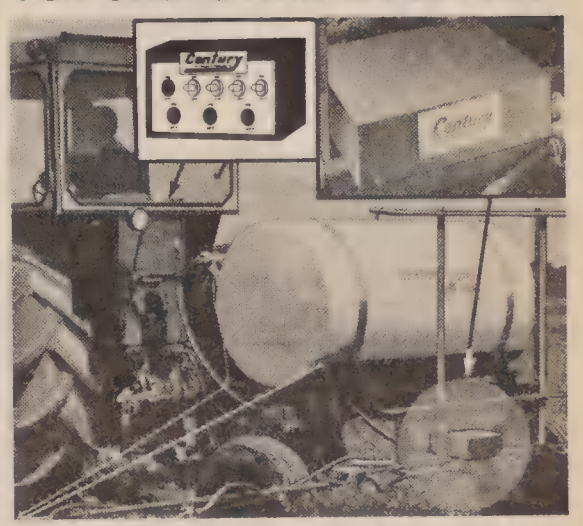
FIRST GRANDCHILD

by Miriam Herwig

Such small, sweet perfection of face and of limb
Delighting my eyes as I gaze upon him;
Diminutive, awesome in every part,
His least little wish will capture my heart.
May this love made flesh be a blessing to each,
And may we deserve his young thrust, I beseech.

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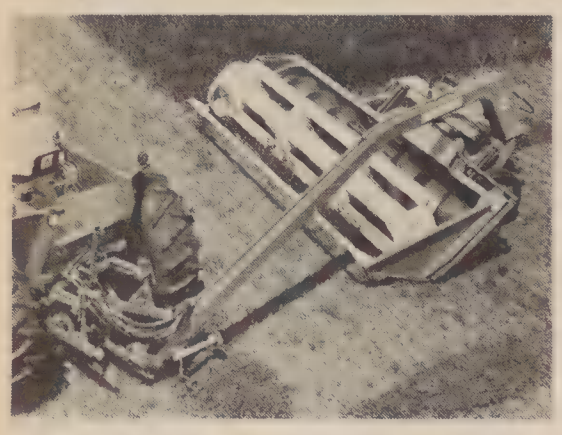
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BLACK RIVER VALLEY, Lewis County, N. Y. Main road - 380 acres tillable, 80 acres woodland. 2 farmhouses, 95 freestall barn, 92 stanchion barn, pipeline, 820 gallon tank, 60 stanchion barn - young stock, 20 x 60 Harvestore silo. Price, $105,000.00. Box 126, Castorland, N.Y. 13620. Telephone 315/376-3330.

COLUMBIA COUNTY - 170 acre dairy farm, 80 free stalls, new milking parlor, silos, bulk tank, milking and barn equipment included. Shop, new 4 bedroom ranch home, additional acreage available. Asking $155,000.00. Others. Call Milton Meisner, Pres., Davton Realty Inc., Hudson, N.Y. 12534. 518/828-4155 or 518/851-9831.

FREE CATALOG. For more than 25 years Four Effs has tried to give you clear, concise details about all kinds of property in upstate New York and New England. Forward looking folks have been and are buying real estate as a hedge against inflation. Our catalog describes a wide variety of listings. Add a few words about special needs, price, etc.; it may prove helpful. Four Effs, Box 264AA, Manchester, N.H. 03105. (Representatives wanted.)

102 ACRES, TWO BARNS, 25 cow ties. Four bedroom home. $33,000. Baldwin Realty of Endicott, New York. Salesman: Miss Needham. 607/642-8867.

CAYUGA COUNTY, near Auburn, N.Y. - 196 acres, 160 tillable, 15 woods! 54 stanchion gambrel roof drive-thru barn 36 x 112′, nearly new cleaner! 36 x 70′ full basement barn, stanchions & pens for young stock! 3 silos, 2 concrete! Nearly new 500 gallon bulk tank! Drilled well & 110 x 125′ spring pond piped! 2 good dwellings, modern conveniences! $85,000 - hurry! LaRock Realty, Martville, N.Y. 13111. 315/564-5400.

DAIRYMAN'S DREAM FARM - 230 acre farm near Cooperstown, modern 88 tie barn, 160 x 80 pole barn has 100 free stalls, storage barns, 2 concrete silos 24 x 60, milking parlor, 2 neat modern homes, could easily handle 200. Boys, this is a real farm! $200,000 and help with financing. Hurry! T. L. Wright Realty, Schoharie, N.Y. 12157. 518/295-1547.

400 ACRES, 60 stanchion barn, 51 milkers, silo, cleaner, 600 gallon bulk tank, machine shed, four bedroom home, stocked and equipped $80,000, $25,000 down. 500 acre free stall, new stable and 12 cow parlor, 165 head, full machinery, two homes, good location, $220,000 complete, $100,000 bare with milking equipment. Gentleman's farm, 87 acres, all tillable, attractive buildings, 9 room brick Colonial, river frontage, 27 heifers, good machinery, very attractive property and a good buy $46,000 complete. Just a sample. Call or write for more. Brisson Real Estate, RD #2, Massena, N.Y. 13662. 315/764-0896 or 315/769-9387.

CAYUGA COUNTY - 310A - 160 tillable, dairy, 40 stalls, bulk tank, large pond, 4 bedroom house, $65,000 bare. $100,000 with stock and tools. 235 acres, 175 tillable, 70 cow barn, 3 large silos. Pond, woods. 5 bedroom house with fireplace. $90,000. 210 acres, 145 tillable, no buildings. $50,000. 75 cow free stall, bare or equipped. Several others recently listed. Call or write, Ralph Real Estate, 147 Genesee St., Auburn, N.Y. 13021. 315/253-6278.

WESTERN NEW YORK - 375 acres, 200 tillable, with modern free stall for 150 head, very efficient unit and a nice 5 bedroom house, grossing $120,000. 442 acres-250 tillable, free stall for 160 head. Modern farm buildings and a very nice house, grossing $75,000. 244 acre hog farm, finishing 1,000 pigs per year, good buildings and equipment, modern 6 bedroom house, grossing $60,000. 250 acres-100 tillable, tie stalls for 73 head. Calf barn, 2 silos, new tool shed, good 5 bedroom house, grossing $40,000. We specialize in farms in Western New York. For additional details write or call Lester N. Fuller, Real Estate Broker, Riceville Road, West Valley, New York 14171. Phone 716/942-6636.

ST. LAWRENCE COUNTY, choice 265 acre dairy farm, completely equipped, new machinery, modern barn equipment, 66 cows, all winter feed. Modern house plus tenant house. 330 acre dairy farm, woodlot, excellent machinery, 52 stanchion barn, Harvestore silo, concrete silo, modern milkhouse with shower and office, 5-bedroom brick house. 130 acre farm (60 additional acres available), excellent buildings, good land with creek. 110 acre farm, 35 head cattle, new barn with conveyor, new milkhouse, with bulk tank, 7 room house, some machinery. R. P. McDonald, Realtor, Ogdensburg, N.Y. 13669. School facilities excellent in area, taxes reasonable on all of the above items.

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CENTRAL NEW YORK - 350A, 250 tillable, 2 creeks, Erie Canal, 3 miles city, State highway, 150 free stalls, Surge parlor, 1,000 gal. tank, two 24 x 60, one 20 x 60 silos with unloaders, automatic feeder, 2 houses, $135,000. Modern split level available. Owner - 315/-363-2347 - 315/437-9067.

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COLUMBIA COUNTY'S FINEST - 400 acre show place dairy farm. Two new modern dairy barns (105 stanchions), box stalls. Shop, machine shed. 3 silos plus Harvestore. Fully automated. Original 1765 stone house. 3 other homes. Gross income over $100,000. Stocked and equipped or bare. Liberal terms. Please call Milton Meisner, Pres., Davton Realty Inc., Hudson, New York 12534. 518/828-4155 - 518/-851-9831.

BIG DAIRY VALUE. See picture in catalog! Well-watered 420-acre New York dairy reported capable of handling 150 head. On stream-like inlet of popular lake for top trout fishing, springs, ponds. 30 x 266 hip roof barn, 30 x 40 ell, 114 stanchions plus heifer stanchions, drinking cups, barn cleaner, milk house, 800-gallon bulk tank, pipeline milker, 3 silos with unloaders, heifer and storage barns. 2-story home 7 rooms, bath, oil forced air heat, basement. Second 7-room house, hot water heat. 305 tillable acres, 40-acre corn allotment. Peaceful town-edge setting. Move up to this one for $89,000. Free . . . 264-page Spring Catalog! Describes and pictures hundreds of farms, ranches, town and country homes, businesses coast to coast! Specify type property and location preferred. United Farm Agency, 501-AA Fifth Ave., New York, N.Y. 10017. Phone 212/687-2623.

CORTLAND COUNTY - A free stall dairy operation built new in 1968. Present owner keeps 80 milkers but facilities designed for 110. Farm has 413 acres with 270 tillable. 20′ x 70′ Harvestore and 20′ x 35′ Harvestore were both built in 1972 while a 24′ x 60′ and a 16′ x 50′ concrete silo were built in 1971. Barn has a double 4 DeLaval milking parlor. 10 room house has been completely remodeled while 8 room tenant house has new wood paneling. Also has 16′ x 32′ swimming pool. Priced at $165,000 bare or $265,000 stocked and equipped. Call Zar Benedict at 914/343-1108 or write Barmann's Realty Sales, Inc., at R.D. #4, Middletown, N.Y. 10940.

300 ACRE NEW YORK dairy farm, very good nine room home, five bedrooms, two car garage. Very good 36′ x 120′ barn, 56 stanchions, 600 gal. bulk tank, 24 x 60 concrete silo with unloader, 16 x 40 silo, other buildings. 200 tillable acres of alfalfa soil, taxes $950.00 per year. Cattle and equipment available. Reasonably priced. We have other farms. Call Richard E. Posson, Lic. R. E. Broker, R.D. #3, Norwich, N.Y. 13815. 607/334-9727.

MOHAWK VALLEY - Dairy farms in and around the Mohawk Valley. One of the largest selections of farms in this Mohawk Valley area. All sizes, all prices. When farm hunting contact John L. Subik, Realtor, 27 West Main St., Johnstown, New York 12095, or call 518/-762-4942 or 518/762-4451.

POULTRY, EGG PRODUCTION-NY state-capacity over 140,000 birds, barns, land, equipment, now operating. Details Crown Realty, W. Seneca, N.Y. 14224. Mr. Glor, 716-674-9090.

FOR SALE: Champlain Valley dairy farm. 370 acres, 250 tillable. 120 head Guernsey cattle, 75 milkers. Fully equipped - all nearly new machinery. Local milk market. Earl Wray, Chazy, N.Y. 12921. 518/846-7315.

A LOVELY FARM - A 108 acre farm with 75 tillable acres in the Amsterdam area. This property has two silos, a pipeline milker, bulk tank and barn cleaner. The house has 9 rooms, fireplace, hot water heat and aluminum siding. This is the most attractive small farm we've seen in ■ long time. Priced at $82,000 bare or $110,000 wth dairy herd and full line of farm machinery. Call Zar Benedict at 914/343-1108 or write Barmann's Realty Sales, Inc. at R.D. #4, Middletown, New York 10940.

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BUYERS WAITING! For good dairy farms within 250 miles of New York City. Bare or stocked. We can finance. Also, interested in recreation land, timber or development land. Make your offer now! Our company also buys direct. Barmann's Realty Sales, Inc., R. D. #4, Middletown, New York. Phone 914-343-1108.

WANTED ALL KINDS OF FARMS, vacant land and timber lots. New York and Pennsylvania locations. W. W. Werts, Real Estate, Johnson City, New York 13790.

QUALIFIED BUYERS WAITING - dairy farms, others. Wimple, Realtors, Sloansville, N.Y. 12160. 518/875-6355.

FARMS WANTED

FARM CAPABLE OF SUPPORTING 2[illegible] cows needed. Principal or agent reply invited. John Schultz, Hickery Ridge Farms, Milesse N.Y. 12761. 914/887-4006.

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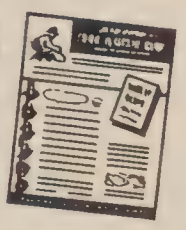
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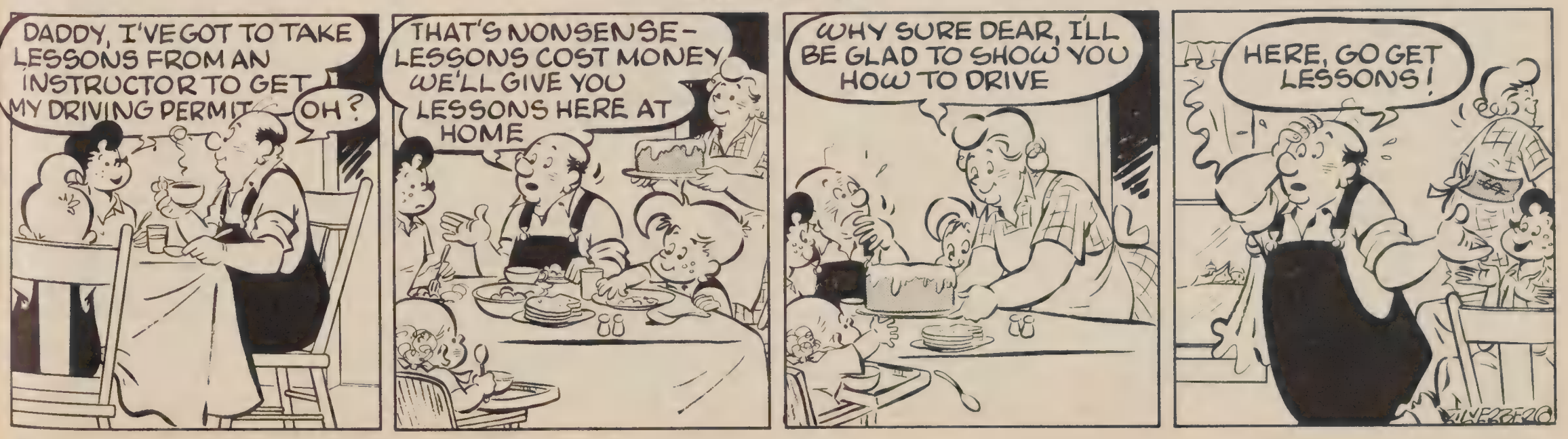
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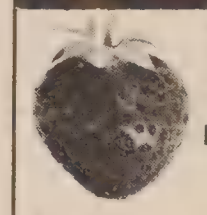
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WANTED TO BUY

WANTED - Old trapping books and magazines. Keith Shippee, Rodman, N.Y. 13682.

WANTED: STAINLESS STEEL TANKS for stationery storage. Prefer truck milk tankers (any condition) from 1000 gal. up. Reward for information leading to purchase. Walker's Fruit Basket, Forestville, N.Y. 14062. Phone 716/679-1292.

WANTED - "RANDALL GENEALOGY", published about 1879, Office of the Chenango Union. Author, Paul K. Randall. Write Paul J. Randall, Randall Drive, Springville, N.Y. 14141.

WOMENS INTEREST

MONEY IN DONUTS - make new greaseless donuts in kitchen. Sell stores. Free recipes. Duncan Ray, Waseca, Minn. 56093.

WALLPAPER - SAVE HALF. Huge 1973-74 catalog of sample sheets, over 60 selections, 50¢ to 99¢ single roll - send 10¢. Mutual Wallpaper, Dept. 32, 228 W. Market St., Louisville, Ky. 40202.

WOMEN! Fill out income tax forms at home in own business. We show you how. Simple, easy to learn. $700 per month earnings possible. Details mailed free. No salesmen. Hurry. Federated Tax Home Training School, 2003, Montrose, Chicago 60618.

1776 JOHNNY CAKE - For 35¢ will send you a copy of this pioneer recipe reprinted from old-time Remedy and Recipe Book of mid 1800's, along with information concerning the book. S. J. States, RD #2, Bath, N.Y. 14810.

BAKING - HOME STUDY. Announcing a Home Study Course in Commercial Baking. Practical basic training. Good field for those with aptitude. Nearly depression-proof. Send for free booklet "Opportunities in the Baking Industry" to National Baking School, 555 E. Lange Street, Dept. 645-60, Mundelein, Illinois 60060. A home study school.

MINIATURES, shells, jewelry, novelties. Discount catalog 25¢. Craft House, 910 St. Vincent, Santa Barbara, Calif. 93101.

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Insert above classified in _____ issues. $_____ is enclosed.

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HANDY for Farm and Home

Handle—A good, sturdy handle can be made for a flat file from an old-fashioned slip-on-type wooden clothespin. Push the clothespin down over the file's tang and tape it tightly in place with several wrappings of electrician's tape.

Jawbone — When you use a hammer to bend strip iron held in a vise, always direct the hammer blows (to the iron) against the fixed jaw of the vise. Repeated blows against the movable jaw will damage it over a long period of time.

Both Hands — If you need both hands to place work in shop vise, the vise can be adjusted by your foot with the aid of a small, stout rope. Tie the rope to the vise handle and wrap it around the vise handle screw or spindle several turns. Tie a large loop in the lower end of the rope. Now you can hold the work in the vise with both hands and close the vise jaws on it by stepping in the loop in the rope.

Tube Spout — Rainwater can be kept from seeping into a basement from a gutter downspout with an old inner tube. Sever the inner tube and fit one end over the end of the drain spout. If necessary, tie the tube on with a piece of wire or stout cord. The tube carries water in any direction you choose eight to ten feet from the house and can be quickly installed and removed.

Burned — Identifying initials or numbers are easily burned into wooden tool handles with rubber cement. Merely squeeze the cement onto the handle in the form of your initials and touch a match to the cement. If initials are not burned deeply enough in the wood, repeat the operation.

Twisted — If you need to twist two wires together, clamp two ends of the wires in your vise and chuck the other two ends in your hand drill or carpenter's brace. Turn the drill, and the wires twist neatly together with little effort.

Capped Teeth — To protect the teeth of a handsaw between carpentry jobs, shield them with a section of old garden hose. Cut a length of the hose slightly longer than the blade and slit it lengthwise. When the slit hose is slipped over the saw teeth they are amply protected from damage when the saw is stored with other tools in a toolbox.

Blueprint — When repairing a lock or other mechanism of many small parts, make a rough pencil drawing that shows the location of each part as the piece is opened for inspection, cleaning and repair. If parts become separated, merely refer to the drawing to determine where each part belongs in the mechanism.



HANDY on the Farm



Keeper—A piece of heavy angle iron with a slit cut in one edge makes a handy keeper for the chain used to latch the barnlot gate. The chain is simply dropped into the slit to draw it close, and it can be unlatched even when you're wearing thick gloves. The angle iron is drilled and fastened to the gatepost with two lag screws.



Itcher—Half of a tractor tire mounted in a frame of welded channel iron bolted to two posts set in the ground makes a good back-scratcher for the feedlot.



Dividers—These dividers with narrow throats lessen crowding, fighting and robbing at the feed bunk . . . and save feed. The sides are made from two 2″×8″s together at the floor and cut away to leave a space 4½″ at the height of the side rail, spreading to within 1½″ of the edge of the planks at the top. A 2″×2″ spacer is nailed between each pair of stanchion rails. Bolts fasten them.

❖❖❖

The Song of the Lazy Farmer



The winter's hard on neighbor's glands, he's got too much time on his hands. Since he don't have to work like mad, he does some thinking, and that's bad; it makes his disposition sour and ev'ry day he spends an hour requiring me to listen while he tells me why he cannot smile. His face is almost two feet long as he orates 'bout what is wrong with all the world, including here, he doesn't see a thing to cheer. He grumbles 'bout the price of grain, high taxes give him lots of pain, and he clings tightly to the fear that we'll have flood or drouth this year.

I s'pose that maybe neighbor's right, but why lay wide awake at night until your thinking gets you down and all you do is growl and frown? I'm sure that worrying won't help, and it don't do much good to yelp to some small citizen like me who can't change things at all, by gee. Course, neighbor's trouble really ain't the stuff 'bout which he makes complaint. What ails him is from spring to fall, he simply don't relax at all, and so in winter he can't find enough to occupy his mind. If he were smart, he'd take his cue from me and loaf the whole year through.

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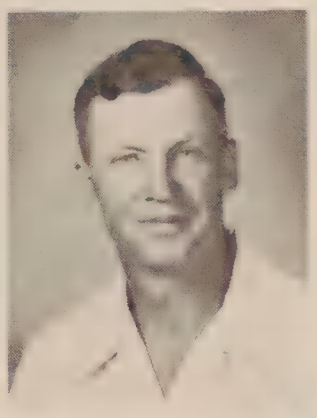
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Gayway Farm Notes

by HAROLD HAWLEY

IT KNOCKS BUT ONCE

Did you ever notice how much easier it is to come to a decision when its the other guy's business and money about which you are experting? Without meaning to criticize anyone else's decision, and certainly with no thought of posing as an authority, I'd like to comment on a situation that surprises me a little.

Of late years in our area, heifer raisers with various-sized enterprises have made the scene. They have met a real need and so far as I know have found a ready market for their springers at what would seem to be satisfactory prices. The total volume of such business has been on the increase as more and more of the cow-milking dairymen have decided to buy more of their replacements.

With veal calf prices being bid so high by the butchers, the cost of calves to be grown out for replacement heifers has naturally increased. No one needs to be reminded that grain and hay prices all fall were rising.

Cutback

So what happened? A lot of heifer raisers sized it all up and decided to cut back or sit it out. I'm not about to say they were wrong, but it seems to me there were a couple of plus factors overlooked in the process of deciding whether heifer raising would be profitable.

One was the price of milk. With prices and the outlook so favorable, replacement heifer prices next summer . . . even at a sharp increase . . . will likely not stop dairymen from aggressively buying. It's just going to make sense to have the barn full of milkers with these milk prices.

An unusual opportunity presented itself to some of these heifer raisers this fall. There was a lot of fair corn that didn't offer much real promise of making money for the grower who planned to harvest it for grain. This was due to its moderate yield and to the fact that it was less mature than usual and its moisture content was high. Such corn returned more to the grower who sold it for silage.

This unusual source of feed was a real bargain in many neighborhoods by comparison to hay or grain. A lot of good heifers could have been grown out on this feed had the growers really been alert to this opportunity to hold their feed costs down.

Feed Costs

There may have been one other way to have held feed costs within reason. A lot of dairymen had mows full of hay not up to their usual standards for milk cows. Much of this hay would have put shine on a heifer's coat. It took a little doing, but a few fellows sold out part of their poorer hay and replaced it with a few loads of high-quality stuff. Some neighborhood heifer growers found themselves a nearby supply of adequate roughage at a price they could live with.

All I'm saying is that this whole picture reminds me of what we used to observe among cattle feeders when we lived in the Midwest. Those who made money over the years were those who were in the business every year. As a matter of fact, the records used to show that more times than not the big profit years were those when the outlook had been a little fuzzy and enough feeders had got cold feet to give the hardy souls an unusual opportunity.

No one will know till next summer or fall, but it sure looks like this may be a year when a lot of fellows will wish they had stayed in there and raised a bunch of heifers in spite of some of the unfavorable outlook last fall.

SIGNS OF THE TIMES

On a recent Sunday night, we went to hear a moving rendition of Handel's "Messiah" in nearby Auburn. As we came from the church and went to our car, the scene and atmosphere was all Christmas. Decorations were aglow and all was beautiful. We drove down the main street all cozy in a little world of lights and music and thought.

Suddenly down the street, above and dominating all else, there appeared a hùge Genesee beer sign. Now I have no argument with those who prefer Jenny . . . nor do I point a finger at the makers of it who are smart enough to advertise. It was just the jolt of being wrenched from that lovely little dream world we were in and being rudely thrust back into the commercialism of a 1972 main street.

PROTEIN-WHERE THE ACTION IS

Aside from weather, one of the most common topics of conversation these days is the high and rising price of protein. Feed company representatives and millers add a further lament about the delay and uncertainty of delivery at any price.

It's not my intent to compile an exhaustive explanation of why protein prices are booming or why it is hard to get delivery. However, there are a couple of very interesting facets to this whole picture.

One has to do with the rapid disappearance of soybeans during the past year. What with a huge supply at the end of 1971 it would have been hard to force such a brisk movement both for export and domestic use. It's a little easy to underestimate how much extra will be fed when there is a favorable price structure in the livestock industry. Certainly for cattle feeders, hog men, and dairymen there has been every incentive to push for fast gains and high production.

Even with high-priced milk, the evidence mounts that many dairymen were a little slow to recognize the need for extra protein supplementation this fall because of the lower quality of their roughages. It was a double jolt to determine that they should be buying more protein at just the time that some kind of records were being set for prices. Still and all, not to meet the extra needs of cows with a potential for increased production has to be a pretty prohibitive bit of false economy.

Not that it is one of the important influences in the protein price structure, but there is another story to be mentioned in regard to protein supplies. Fish meal from Peru has for years been a part of the overall supply of protein feed in this country. The awful tragedy of the "Red Tide" which hit the west coast of South America last spring largely wiped out the fishing and therefore the fish meal exports. Ecological changes not fully understood by oceanographers had caused anchovies and other species to all but vanish from Peruvian coastal waters.

Fishing

The fishing and the fishing industry that existed in Peru was a most interesting situation. The concentration of fish in these waters absolutely staggered the mind.

I had the opportunity to see a little of this several years ago. The birds that were also living off the fish flew 6-10 feet above the water, then zoomed into the water and up with a fish. The blanket of birds extended out to sea as far as the eye could see. We drove more than 100 miles along the ocean and this blanket of birds over the water was continuous. Aside from pelicans, I don't know the names of any of them . . . but there literally must have been millions of those birds.

All down the years, another big export item from Peru was guano . . . the high-protein organic fertilizer from the manure of these birds. It was periodically cleaned off the rocky islands where the birds nested and roosted. These manure-covered islands shone white in the sunshine.

Differences

You can readily imagine the differences of opinion that were held by people in the fisheries' industry and those in the fertilizer industries. The fishermen wanted to harvest as many tons of fish as possible. The fertilizer people preferred that more of the fish be left for the birds, thus ultimately increasing fertilizer tonnage.

Legislation had finally been passed which regulated both industries. To use a phrase which I'm sure the Peruvian legislators had never heard, the laws tried to establish some kind of an ecological balance between the fish harvest (total by man and bird), and what the feed supply in the ocean would sustain.

Following the disaster there last spring . . . which just may have some common causes with our own fishing problem off Cape Cod . . . it would be anyone's guess when or even if a new fish and fertilizer industry will be developed along South America's west coast. In any event, don't look for any break in protein prices as a result of more fish meal supplies from Peru for quite a spell!

OUR KIDS AND THEIR SCHOOLS

The recently-released portions of the comprehensive Fleischman Commission Report will be studied, discussed and modified, and at least parts of the recommendation will eventually find their way into education laws of New York State. All of us have an interest in this . . . as parents concerned about the educational opportunities of our children and grandchildren . . . and as taxpayers concerned with the ever-spiraling costs of education.

Here are two of the issues dealt with: public funds for private school financing, and state determination of a salary structure for four categories of teachers. There are a dozen or more other major issues as compelling as these.

My only comment is that no one can really afford not to be informed on something as important to the future of the youth of our land or to the future of our country.

PROGRESS IN THE HOME

It's old stuff to use heating lamps to warm up and save newborn calves or lambs. Many milkers keep the chill off with strategically-placed batteries of lamps in the milking parlor. Eating establishments have used this source of heat to keep the meat hot.

Now comes the day when humans can really enjoy the luxury of infra-red heat. A couple or three of these lamps mounted overhead in the bathroom to toast a body after it emerges from the shower is a luxury which, once enjoyed, becomes a necessity!

BOON TO YOUNG AND OLD

Glazed doors or thick shower curtains that defy prying eyes are pretty much standard equipment in most homes. May I be the first to tell you of a better way? Recently we saw, used, and observed what has to be the greatest step forward in shower equipment in the last hundred years. Actually it doesn't do so much for the shower but it surely should spruce up any marriage.

Here's the picture. Absolutely transparent plastic shower curtains equipped with a 12-inch strip of leather about hip high. The result is a topless view plus a nice leggy picture — nothing else — and that's just right. It's more sexy than anything since Cleopatra. Try it, you'll like it!

READER SERVICE



READER SERVICE CLAIMS SETTLED

NEW YORK

Mr. Walter J. Lepski, Pine Island..$218.25
(payment for onions)

PENNSYLVANIA

Mrs. Bernadine Finnegan, Westport ..3.93
(refund on order)
Mr. John B. Sopko, Jermyn 2.25
(refund on order)

NEW JERSEY

Mr. Richard Anderson, Milford 9.89
(refund on bulbs)

MAINE

Mrs. Martin French, Dover-Foxcroft 7.27
(refund on order)
Mrs. Charlene McIntire, Presque Isle 17.19
(refund on order)

MASSACHUSETTS

Mr. Sidney J. Langley, Concord 4.23
(refund on order)

OREGON

Mrs. John Ekman, Forest Grove 15.00
(refund on pictures)

OHIO

Mr. Clyde Williamson, Lisbon 46.73
(refund on heater)

NUTS AND BOLTS

"When I wrote about the delay in filling my order, I was told that it was because the company was changing over to a computer system. To me a computer is nothing more than a glorified pinball machine. It is amazing what faith people have in a mess of gears, nuts and bolts."

Such is the reaction of one reader. Even though his statement would be challenged in electronics circles, it does seem that more and more companies excuse poor service in such a manner. While changing systems is a legitimate excuse in many cases, our files show that some continue to use it as an alibi long after initial "bugs" should have been eliminated.

The fact remains that customers (and even the writer of this column) tire of hearing that a computer is at fault. To paraphrase Geraldine, "What you puts in is what you gets out."

EARNING PIN MONEY

It is not as simple as it used to be to set up a gift shop or other small business in your home to add to the family income.

In New York State, for example, you will find that you must collect sales tax except on exempt food items. Soft drinks and candy, as well as non-food items, are taxable unless the purchaser furnishes a resale certificate or exempt use certificate.

You must keep records of purchases and sales for a period of three years. If you hire outside help, you will get involved with payroll deductions and quarterly reports.

Check on regulations with your State Sales Tax Bureau and with your local or state Employment Service. Also ask your town or village clerk about possible local zoning or licensing regulations.

"Starting and Managing a Small Business of Your Own," S&M 1, is available at a cost of 35¢ from the Small Business Administration, 1441 L Street, Washington, D. C. 20416.

BEFORE AND AFTER

A few years ago, Drug Research Corporation, its president, and its advertising agency were found guilty in Brooklyn Federal Court of defrauding the public in the sale of Regimen diet tablets. An appeal in the Federal Circuit Court of Appeals was lost — nearly ten years after the Better Business Bureau first questioned the advertising claims in 1957.

A subscriber recently sent us material about a no-diet reducing tablet called Slim-Tabs 33, being sold by Stanford Research Corporation, 19 North Harrison Street, East Orange, New Jersey. This had the earmarks of another Regimen-type promotion.

We find that the company has been challenged by the Postal Service under Title 39, U. S. Code 3005, on charges of misrepresentation through the mails. An initial decision is that the respondent is so engaged. Mail addressed to Stanford Research Corporation is being held by the Post Office.

Not New

Diet pills are not a product of the Twentieth Century. A women's magazine published in 1894 carried several diet pill ads. One of the more famous weight-reduction schemes in recent years involved Dr. Herman Taller, author of the best-seller "Calories Don't Count." The book claimed that CDC safflower oil capsules would promote weight loss, and over two million copies were sold.

Reducing garments, pills, devices, creams, and even "mind-over-matter while you sleep" schemes have been promoted over the years. Here are a few statements made by the Food and Drug Administration and the National Better Business Bureau about weight reduction:

The Facts

Vibrator devices should not be represented as effective for treating diseases or weight reduction. (FDA)

NBBB knows of no bath additive or other external preparation which has any influence in reducing weight when used in conjunction with hot baths or otherwise. (NBBB)

According to medical authorities, there is no known product generally available to the public which has the qualities or characteristics to provide effective weight loss or weight control without some type of dietary modification or regulation. (NBBB)

Any weight reduction that would occur through the use of garments . . . would result from a water (not fat) loss through perspiration . . . The fluid which helps comprise fat tissue is immobile. (NBBB)

Obesity is a complex health problem. Significant weight loss should be sought under medical supervision.



Mrs. Lois Conklin of Evans Mills, N.Y. slowed down her snowmobile coming to a gate in the fence line. As the snowmobile went into a little dip one of the skis broke through the snow and caught on the icy crust. The lurching machine threw her to one side dislocating her shoulder and severely tearing the muscles and tendons. On first examination it was thought that she would never be able to use her arm. However, after great personal struggle she has proven to the doctors that she would not become a cripple.

North American agent, Bernard Virkler of Castorland, N.Y. delivered benefits totaling $4847.91. Mrs. Conklin's $200 a week Hospital and Home Recuperating Income policy paid $2571.48 because she was hospitalized for 30 days. Her other North American accident policies paid an additional $2276.43 in medical expense and disability income benefits.

"We appreciate the personal service that Bernard Virkler has brought to us. He has called on us over the years and we have taken out policies each time to keep our protection up to date. My husband and I have had a lot of Insurance but this is the best. We are more than satisfied with the payments received for shoulder injury."

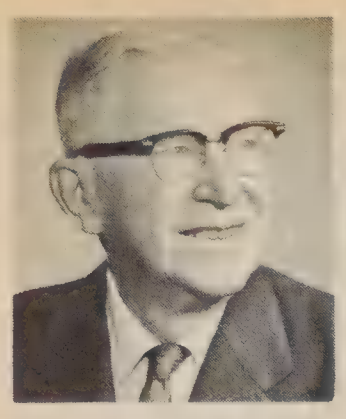
Mrs. Leonard Conklin

OTHER CLAIMS PAID

Esther M. Komjathy, Berne, N.Y. ..... $ 227.25
Fell on ice—broke arm
Grace E. Bledsoe, Wellsville, N.Y. 375.51
Fell on ice—broke arm
Arthur Manasse, Whitney Point, N.Y. 1180.00
Slipped, fell—broke arm, leg
Leonard D. Law, Franklinville, N.Y. 1915.09
Run over by tractor—broke arm, ribs
Thomas C. Taft, Gowanda, N.Y. 120.00
Snowmobile acc.—barbed wire cut face
Herbert Hall, Sterling, N.Y. 203.81
Struck car riding snowmobile—cut leg
Charles P. Gugino, Silver Creek, N.Y. 810.06
Snowmobile acc.—broke arm
John D'Angelo, Jamestown, N.Y. 1283.00
Skate caught leg—inj. back
Daniel Manchester, Pine City, N.Y. 214.29
Ice skating—broke leg
George H. Petry, Norwich, N.Y. 1690.00
Motorcycle flipped—broke leg
Lee V. Poupore, Churubusco, N.Y. 1377.14
Snowmobile acc.—scraped leg
Clinton R. Hyer, Cortland, N.Y. 1243.50
Motorcycle acc.—inj. knee
Richard Nevin, Fish Eddy, N.Y. 1000.00
Snowmobiling—broke arm
Robert D. Tyler, DeLancey, N.Y. 535.51
Fell off snowmobile—injured shoulder
Keith J. Schmitz, N. Collins, N.Y. 1395.00
Snowmobile hit guard rail—broke leg
Anthony Chiavetta, Brant, N.Y. 475.00
Slipped on ice—broke teeth
Agnes J. Aubrey, Burke, N.Y. 913.06
Slipped on ice—head injury
Robert M. Stewart, Johnstown, N.Y. 1012.43
Kicked by cow—broke ankle
Florence Conine, Windham, N.Y. 262.86
Slipped on ice—broke ankle
Craig Chafee, West Winfield, N.Y. 889.19
Caught in snowmobile belt—broke arm
Robert Richvalsky, Mohawk, N.Y. 348.28
Snowmobile accident—injured foot
Nora L. Cooley, Mannsville, N.Y. 1445.00
Fell on ice—broke leg
Diane M. Reay, Evans Mills, N.Y. 153.38
Thrown from snowmobile—inj. shoulder
Frances Miller, Deer River, N.Y. 1073.34
Snowmobile accident—broke ankle
Lynn V. Allen, Lowville, N.Y. 762.31
Snowmobile accident—inj. leg
Glenn M. Jones, Madison, N.Y. 106.47
Caught in snow blower—cut finger
Gerald Rockwell, Hamilton, N.Y. $1382.14
Tractor tipped over—broke ribs
Harley W. Bohlke, Amsterdam, N.Y. 279.29
Fell on icy driveway—inj. back
Phillip Milleville, Niagara Falls, N.Y. 1193.80
Fell from wagon—broke leg
Adolph Kopack, Utica, N.Y. 913.50
Taking snow out of blower—broke hand
Daniel J. Baker, Baldwinsville, N.Y. 272.90
Auto accident—cut knee
Amanda Nowack, Victor, N.Y. 576.50
Fell on wet snow—broke leg
Irving Cherry, Johnson, N.Y. 363.84
Snowmobile accident—cut neck
Charles E. Dawson, Albion, N.Y. 1325.00
Car hit snowmobile—broke hip
Ivy M. Caster, Sandy Creek, N.Y. 419.85
Snowmobile acc.—inj. shoulder
E. Ferris Banner, Oneonta, N.Y. 1624.13
Tractor-snowblower acc.—inj. hand
Irene Woods, Brasher Falls, N.Y. 310.71
Snowmobile acc.—broke leg
Bernard Lantry, Helena, N.Y. 1058.72
Snowmobile accident—broke leg
B. Hotaling, Jr., Sharon Sprgs., N.Y. 129.31
Snowmobile hit wire—cut face
Harry E. Wyckoff, Gilboa, N.Y. 1000.50
Snowmobile acc.—inj. shoulder
Frederick Robson, Jr., Waterloo, N.Y. 299.42
Snowmobile acc.—injured knee
Elaine D. Buck, Campbell, N.Y. 565.14
Snowmobile accident—inj. shoulder
Gerald Van Fleet, Greenwood, N.Y. 642.41
Snowmobile acc.—broke leg
Hazel M. Corwin, Calverton, L.I., N.Y. 252.84
Fell on ice—broke ankle
Ronald Gwara, Owego, N.Y. 731.85
Snowmobile accident—broke nose
Richard K. Clark, Marion, N.Y. 1670.00
Snowmobile accident—broke leg
Gordon VanMaldeghem, Palmyra, N.Y. 188.00
Snowmobile accident—head injuries
John Maloney, Wysox, Pa. 1210.71
Snowmobile accident—inj. leg
Elvin E. Hill, Newton, N.J. 176.91
Fell on ice—inj. shoulder
David A. Meirs, Cream Ridge, N.J. ... 1005.70
Kicked by horse—broke shoulder
Jeanne Callan, Starksboro, Vt. 813.38
Snowmobile acc.—broke ankle
Barbara Mayotte, E. Fairfield, Vt. 232.86
Snowmobile accident—inj. shoulder

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No-till farming

by Amos Kirby
New Jersey Editor

NO-TILL farming has advanced to the point that the University of Delaware has published an up-to-date bulletin. New Jersey growers have given it a wide range of trials and what they have seen looks good.

Growers in Montgomery County, Maryland, used the no-till system on 72 percent of their acreage in 1972, comprising 14,000 acres.

Early in December, the University of Delaware invited growers to attend a no-till conference. More than 1,000 of them came, listened and went home convinced that here was something that could fit into many types of farming.

It has proven highly successful with corn and soybeans. One of these days, maybe in 1973, it will be tried in New Jersey on some vegetable crops.

If one has a field of rye that is to be plowed down for corn or soybeans, the rye is killed with one or more weed killers. This rye, which is from 24-30 inches tall, then becomes a mass of dry material that covers the ground with a thick mulch.

Now enters the special equipment to cut through the fallen rye, plant the seed and that is about all there is to it until harvest time. These planters are heavy pieces of equipment, drawn by almost any of the larger modern tractors.

Some Problems

There are still problems to be solved. For instance, it has been learned that the corn or soybean seed must be placed deep enough in the soil so that it is in a soil-moisture zone that permits germination.

Growers have also learned that there must be a rubber tire of a special design that will pack the soil over the seed.

There may be weed problems. The annuals are not too difficult to control if the herbicide has been properly applied. The perennials present some difficult problems . . . in either case everything must be done right because no cultivation is possible.

The average yields in both trial plots and commercial plantings are as good or better than where the usual plowing and tillage system is followed. Where reduced yields did occur, they were mostly due to such things as late plantings, not enough moisture for germination, or an improper kill of weeds. Yields of 100 bushels of corn, and more than 40 bushels of soybeans per acre, have been harvested from no-till fields.

Double Cropping

If one lives in an area where barley and soybeans (or corn for silage) may be double cropped, the no-till system offers special possibilities. Delaware has had excellent results with barley followed by soybeans.

An 80-bushel yield of barley, plus 39 bushels of soybeans from the same acre with no-till, can be a very satisfactory return in an average year.

Cutting through the barley straw may require a uniform spreading, rather than windrowing, to allow the cutting discs to penetrate the soil. This has been done, and good yields harvested.

It has been suggested that one application of irrigation to moisten the soil after barley (which leaves the soil dry at harvest) is an avenue to getting a better crop of soybeans.

In addition to being a labor-saving practice, no-till can enhance such things as soil conservation and better utilization of rainfall because the straw (or sod) conserves the moisture. No-till is also used on sod, with a combination of herbicides being used to kill all vegetation before planting field crops.

PICTURE CHANGES

There are some new trends between 1967 and 1972 in the Garden State's apple and peach industry, indicated in figures from a late fall survey by the State Department of Agriculture.

1. While there are fewer total trees, there is an upswing in the plantings of dwarf or semi-dwarf varieties. It was found that 39 percent of all apples are of the dwarf type in 1972, compared with 27 percent in 1967.

2. The varieties listed show a trend to Red Delicious, Rome, Stayman and Yellow Delicious. A few years ago there were about 20 varieties listed.

3. There are fewer growers. Some of the land of prominent orchardists has been absorbed in housing developments, or they have sold their land to speculators.

4. There are 1,246,588 peach trees in orchards . . . compared with 1,431,839 in 1967. The varieties most popular are the Rio-Oso-Gem, M.A. Blake, Redhaven and Jerseyqueen. Some varieties popular a decade ago are now merely a memory.

PERMISSIVE BURNING

Steps are being taken to liberalize one of the regulations imposed by the Environmental Protection Agency. Growers are demanding that the no-burning regulation be modified. Under this strict regulation, no vegetable matter such as diseased plants, orchard trimmings and weed seed destruction is permitted. New legislation is aimed at permitting burning to destroy this waste material.

MOVING OUT

Inter-State Milk Producers is building a new headquarters. It will be located on Industrial Drive, Southhampton, Bucks County, Pennsylvania. Ground has already been broken; the new facilities will house the Philadelphia Dairy Council, and will be adjacent to the Quality Control Laboratory.

The move is in keeping with other organizations moving to important highways that are accessible to members. The American Farm Bureau Federation has moved out of Chicago, and the New Jersey Farm Bureau has under wraps a plan to locate outside Trenton at some future date.

A NEW CROP

Delaware is experimenting with a new crop being grown for the birds. It is sunflower seed to be sold to firms that produce seed mixtures for the winter feeding of birds.

The market exists. Thousands of tons are sold each year for bird feeders. Delaware has three experimental plots under close observation. If the product meets market requirements, it will be recommended for the 1973 crop year.

HOG CHOLERA

The cholera outbreak in Gloucester County in November was one of the worst in recent years. It is unofficial, but there is evidence that approximately 10,000 head were slaughtered. The outbreak was centered in a garbage feeding area where as many as 30,000 head were on farms.

This was in an area where every pig farm feeding garbage was equipped with facilities to cook the waste material before it was fed. It must be noted that vaccination programs were stopped in 1969. The present approach is to find the disease, confine it and eradicate it without vaccination. However, not everyone is convinced that control is possible without vaccination.

Without hog farmers feeding garbage, cities such as Philadelphia must find some other system of disposing of 200,000 tons of garbage each year. A lot of highly-nutritious feed finds its way into feed troughs on these farms.

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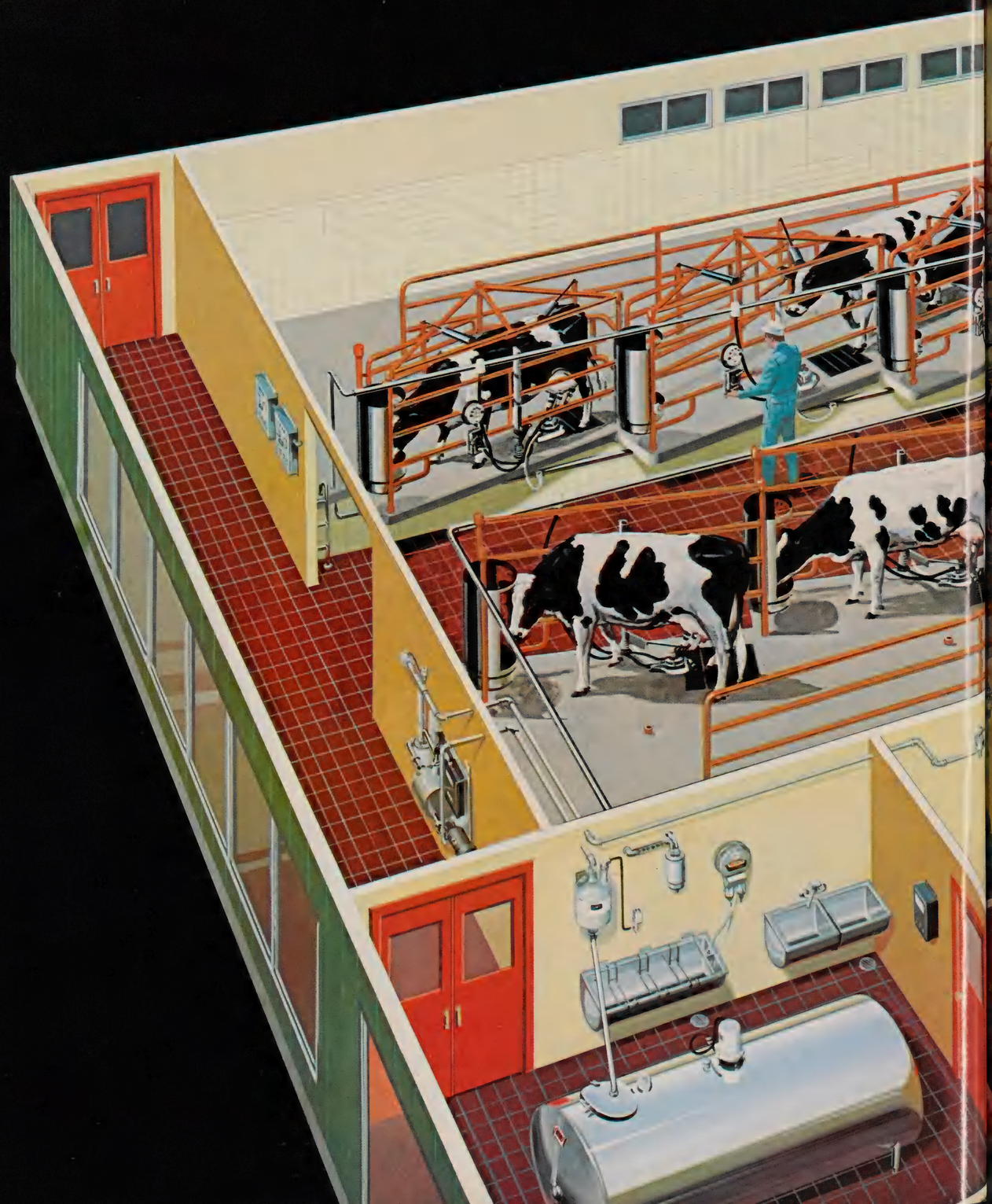
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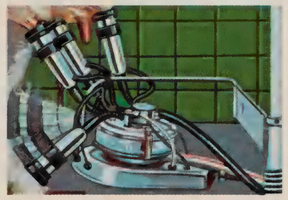
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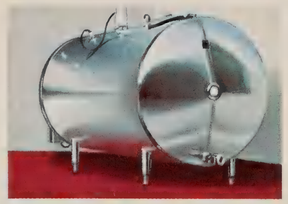
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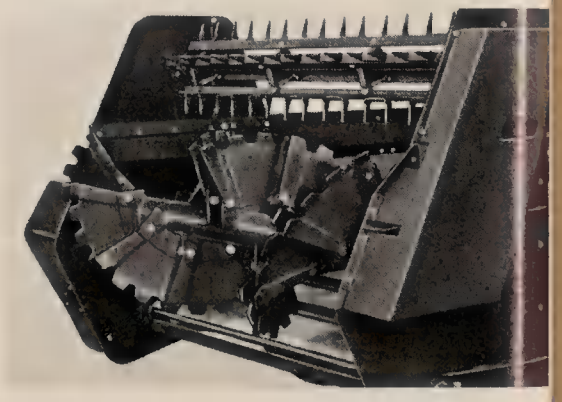


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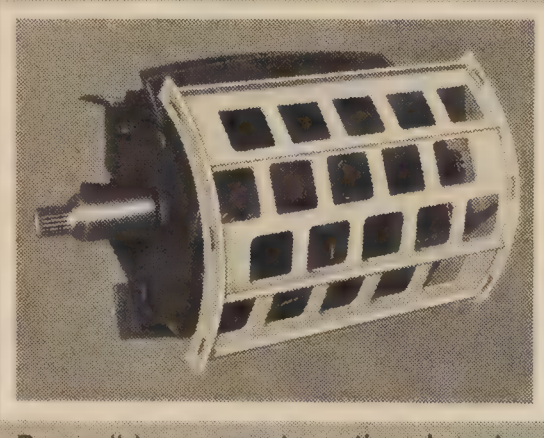
OUR COVER

By March, winter has palled a bit for most northeasteners. So feast your eyes on that picture of a superb beach in Hawaii. American Agriculturist sponsors tours to Hawaii and other marvelous vacation spots of the world . . . details included in each issue (see page 50).

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EDITORIALS



by GORDON CONKLIN

WHOSE LINE FENCE?

As reported in earlier issues, the Appellate Division of New York State's court system has declared unconstitutional the state's fencing laws. It is illegal, declared the court, to require someone **without** livestock to bear part of the cost of building a line fence on behalf of his neighbor **with** livestock. The decision is being appealed.

Although the overwhelming majority of farmers appear to disagree with that decision, and prefer the law the way it has been for many decades, not all is unanimous even among farmers. I listened recently to a farmer express himself on the subject . . . a man who owns considerable acreage, but raises cash crops rather than livestock.

"I have a common boundary more than a mile long with a sheep-raiser," he commented. "My neighbor wants me to build my half of the fence, and make it sheep-tight with woven wire and steel posts. Just add up the dollars involved for me to build my part of the fence along three-fourths of a mile for the next twenty years!

"Furthermore, I have other miles of boundary with dairymen . . . along permanent pastures, and fields grazed in the fall. My line-fencing costs could easily run into hundreds of dollars yearly . . . yet I keep not one head of livestock on the place! Where is the equity in that arrangement?"

I've served my earlier years on the handles of post maul and fence pliers . . . as well as visited with hundreds of farmers (and rural non-farmers) about the problem of who should build the line fences. My guess is that farmers will lose this one . . . and might as well get used to doing all the fencing if the neighbor has no livestock. As a matter of fact, many livestock owners have long since been doing so.

What happens when a farmer builds all of the fence and **then** the neighbor decides to keep a few horses (or beef cattle) on his side? A good neighbor will offer to carry his share of the fencing load in that instance. However, new legislation may be needed to clarify . . . and enforce . . . equitable line-fence responsibilities in the rural areas that are now far different than when the existing fencing laws were put on the books.

REAP IS REAPED

Over the years, one president after another has attempted to reduce the amount of federal money spent on ACP . . . now called REAP (Rural Environmental Assistance Program). These funds were spent to cost-share such practices as the installation of tile drains in fields, ditching, lime application, woodlot improvement, and many more.

The programs were popular with farmers, however, and Congress became involved in an annual ritual . . . the reinstatement of ACP-REAP funds taken out of the federal budget by the president. President Nixon, however, went the whole route and **totally eliminated** REAP activities near the end of last year. The official reasons given were higher levels of farm income, and the need to limit federal expenditures to $250 billion in the present fiscal year (**only** $250 billion, mind you).

As expected, the anguished cries rose toward the heavens all across the land. The chairman of the National Limestone Institute . . . which, incidentally, seeks to promote lime sales . . . even claimed that the action would create a situation where, "It won't be long before this country, too, will be reduced to what happened to the Euphrates Valley, Egypt, North Africa, India and most recently, Russia."

Time was when farmers were proud of their rugged individualism, but times change. Many years of ACP (and then REAP) payments to farmers have transformed a luxury into a necessity . . . and farmers resent the withdrawal of payments intended to encourage them to carry out good farming practices. Applying limestone on most soils of the Northeast, in order to keep pH at levels of 6.5 to 7, is a mighty profitable investment for farmers . . . with or without Uncle Sam's help.

The crying-towel for REAP will be wrung dry of its last drop of political vintage . . . and the hullaballoo will only by sheer coincidence contain an occasional ray of light. The Congress may decide to take on the President, and try to force the reinstatement of REAP.

But the fact remains that keeping the federal budget under control has apparently become a near-impossible task. Everyone wants to reduce spending . . . as long as the economy ox gores **someone else.**

Farmers can expect strong pressure to reduce USDA expenditures in other ways . . . including the lowering of payments for idling cropland. Realistically, farmers must expect to bear a fair share of the burden of budgetary cost-cutting . . . but they will have to fight hard to resist becoming the fall guy in a country where 96 percent of the people are not farmers.

GRANGE IN TROUBLE

A Grange hall near where I live is expected to close its doors soon, joining a long list of other subordinate Granges no longer functioning across New York State. The primary symptom of decline is decreasing membership.

At the last Annual Session of the New York State Grange, former State Master Russell Curtis commented, "In his report of the State Grange Executive Committee to the 92nd Annual Session in 1964, Brother Leonard Fuller said, 'Your Executive Committee has spent long hours considering and trying to solve or alleviate, as best we could, the continuing problems confronting our Order. First and foremost of these problems is our loss of members. The reasons for this loss are varied and numerous. Whatever the reason, the end result is a loss of prestige for our organization and a loss of revenue to meet our bills.' "

Mr. Curtis then reported, "The same statement of facts holds true today. Since 1964, we have seen a steady decline in dues-paying membership from 79,922 to an estimated 46,500 for the year ahead."

Back about 1950, by the way, the New York membership was just above 140,000. Compounding the problem is the fact that a substantial proportion of even the dues-paying Grangers do not participate in the organization's meetings or other activities.

There have been a great many study committees that have filed recommendations intended to correct the problem . . . and there have been many grass-roots contacts made with Grange members to get opinions about what needs to be done. Unfortunately, however, few of these recommendations have been implemented, and the ebb tide away from the organization continues.

My nomination for the single most important recommendation that needs implementing involves raising annual membership dues to the point where a professional staff can be hired. Part of that staff should surely be people long on knowledge about successful involvement of younger people . . . the lifeblood of any organization's future.

The Grange in the Northeast has so much going for it . . . an honorable history of constructive action . . . a deeply spiritual foundation . . . a great potential for serving rural people in an area where the population of rural people is **increasing.** If it can shake off the shackles of the past, streamline its activities and formalities to fit the life styles of the present, and come to grips with the real rural problems of the future . . . then the Grange will prevail.

What are your opinions about how the Grange can gain a new lease on life in these changing times?

AGRICULTURAL DISTRICTS

As of January 16 this year, 14 agricultural districts had been formed in New York State . . . involving 75,626 acres of land. In addition, there were 22 other districts in some stage along the formal procedure of being approved, and 228,935 acres were involved in these. This made a total of 304,561 acres in both categories.

The districts do not "preserve" agriculture in the sense of forever locking the land involved into farming. They do, however, help create a "climate" within their boundaries that encourages farmers to make the long-run investments so necessary to modern agriculture. Furthermore, they discourage the haphazard spread of urbanization into some of the finest farming land of the State.

Tax assessment on the basis of agricultural use is available to farmers within the districts . . . but this is by no means the only arrow for the bow of agricultural viability. Modification of the right of eminent domain . . . protection from special assessments for sewer and water lines . . . restriction of local "nuisance ordinances" . . . all add to the enhancement of agricultural stability inside the boundaries of the districts.

The time to form a district is **before** major land-use problems develop in an area . . . before emotional clashes harden opposing positions so they set like concrete. Empire Staters can get information on the districts from their county agricultural agents . . . or check with William Bensley, Agricultural Resources Commission, Building 8, State Campus, Albany, New York 12226.

A PSALM OF PERMISSIVENESS

Permissiveness is my watchword, I shall not discipline
It maketh me as a parent to lie down on the job
It leadeth my children all day beside the swimming pool
But blaming society restoreth my soul.

My offspring liberate gasoline from the farmers by night
They leadeth me to the judges to pay for their vandalism
But I feel no responsibility
It is the fault of the times.

Yea, though I walk through the foundations of the burned schoolhouse
I shall fear no remorse, for the rod and the staff are put away
Permissiveness preparest an alibi in the presence of mine enemies
It anointest me with soothing oil; my head runneth empty.

Surely petulance and immaturity shall follow my children all their days
And I shall rationalize in the house of irresponsibility forever.

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Agricultural issues

THE New York State Council of Agricultural Organizations (CAO) is made up of two statewide groups . . . the Conference Board of Farm Organizations (CBFO) and the Agricultural Businessmen's Council (ABC). In turn, the CBFO has as members 11 farm organizations, and the ABC lists 10 associations of businessmen in its ranks.

Each one of those 21 organizations develops policy positions through local and statewide membership meetings. These are sorted over and modified at the annual meetings of the CBFO and ABC . . . then finally these two organizations compare notes at an annual CAO meeting. The policy statements that come from CAO carry the unanimous endorsement of all 21 organizations.

Digest

Here's a digest of some of the things CAO members believe to be of major concern to New York State farmers and agribusinessmen in 1973. Many of these have appeared on the list in some form in previous years, and some will undoubtedly be legislative and policy objectives for some years to come. Anyway, here goes:

1. **Agricultural chemicals** are recognized as being under fire . . . yet they are badly needed to sustain food production by commercial agriculture. Continuing pesticide research and reasonable regulations are called for.

2. **Agricultural labor** is another "crunch" area in our society. CAO calls for an Agricultural Labor Act more appropriate to agriculture than the present State Labor Relations Act designed for industrial employment.

3. **Agricultural districts** are recognized as a step forward in insuring the viability of agriculture and the preservation of open space.

4. **Runoff control** can best be handled on a complaint basis, rather than creating a new bureaucracy to police complicated standards.

5. **Agriculturally-licensed trucks** should not be limited to a maximum of 30,000 pounds.

6. **Agricultural research and extension** are supported, with several specific projects (including wildlife damage, mastitis, golden nematode control) receiving special endorsement.

7. **All-terrain vehicles** should be subject to same regulations as snowmobiles.

8. **Automobile insurance** needs to be reformed, but driver accountability should not be eliminated.

9. **Taxpayers** in the Empire State pay the highest taxes per capita in the nation. Reasonable debt ceilings for government are needed at state and local levels.

10. **Well casings** with upper ends terminating below ground level are prohibited by USPH-FDA directive as of July, 1974. The CAO recom-

(Continued on page 10)

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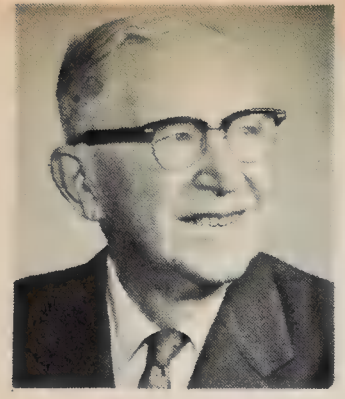


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Blueprint delayed

by Amos Kirby
New Jersey Editor

ONE of the highlights of Farm Week was a discussion of the Farmland Assessment Law. Due to an unfavorable report by the Center for Analysis of Public Issues, a private agency at Princeton, the long-awaited report by the Blueprint Commission on the Future of New Jersey Agriculture has been temporarily delayed.

It became apparent to everyone attending the discussion that the future of farmland assessments is one of the major features of the Blueprint Commission report.

The Farmland Assessment Law, enacted in 1965, required tax assessors to value actual farmland at a level that would enable New Jersey agriculture to be on a competitive basis with other states. It is impossible for even the most efficient operators to pay taxes on land that has been assessed at values reflecting prices offered by developers or speculators. There are numerous instances where farmland with a going price of $500-$800 an acre for agricultural uses has been sold for $5,000 to more than $10,000 an acre for other purposes.

What started all the recent controversy was that some buyers rented this land back to the former owner (or another grower) at a low rental, and kept the former farmland assessment. However, there is a roll-back provision in the law so a speculator who finally sells at a high price has to pay "back taxes" due on the basis of the sale price.

No issue in 1973 can be of greater importance to Garden State farmers than the farmland assessment program. Two spokesmen . . . Arthur West, president of the Farm Bureau and William Park, economist at the College of Agriculture and Environmental Science, spoke in no uncertain words that, if agriculture is to exist and open space is to be maintained, farmland taxes must be within limits that will encourage farming and open space to be retained.

FUTURE FARMING

Since mid-1973, there has been an upward trend in farm prices. Cattle have sold above $43 per cwt., hogs at $35, soybeans approaching $5 per bushel, corn $1.55 (and higher)

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wheat at $2.70, with fruits and vegetables at prices that would indicate more profitable levels.

Meat prices have advanced due to consumer demand. Fruit and vegetable prices have moved upward in response to diminished supply . . . in turn caused by low net returns of recent years.

Balance

Studying the farm situation, based on both travels and reports, I am convinced that the supply-demand ratio is nearer in balance than at any time in recent years.

The meat situation has an international angle which indicates that worldwide demand for meat is not going to subside in the foreseeable future. A rising standard of living, especially in Japan, has absorbed the potential meat supply from Australia. Top grades of meat in European markets have been far above $2 per pound.

Present demand for meat in the United States will continue. At the same time, cattle feeders will be drawing on the grain supplies, and tend to maintain above-normal demand that will place feed-grain producers in a more favorable position. As long as meat prices remain high, consumers are buying above-normal amounts of fresh vegetables, plus eggs and poultry, to stretch the family budget.

The uncertain part of farm production is centered around the prices to be offered to contract growers for most processed vegetables. For the last four years, growers have been paid about the same general price that has prevailed since the 1967-68 period. Growers in many sections of AA-RNY territory have an opportunity to move into enterprises such as soybeans, corn, or even cattle . . . if the price offered by processors does not cover the cost of production plus a reasonable profit.

There is much evidence to support the view that 1973 may be the first year in more than a generation when this country has come face to face with a food shortage.

With worldwide food shortages developing, largely as a result of increasing consumer incomes (and a bigger demand for high-quality foods), they can persist for a long time to come. It could rank along with the fuel and energy crisis that is developing.

OPEN BURNING

The Environmental Protection Agency is still adamant on open burning of tree trimmings and waste vegetable matter. Requests made to the EPA for a permit result in the statement, "No burning."

There is a possibility that this feature of the law may be amended to allow limited burning. Until the legislature acts and adopts an amendment, those brush piles will be around until one finds some other way to dispose of them.

FLOOD PLAINS

The Environmental Protection Agency is reaching out to regulate the use of flood plains.

The EPA is directing every municipality to adopt a flood plain ordinance. At the first of February, the EPA has no positive plans on what the ordinance should contain. One of the unexplained items is, "What is a flood plain?" Everyone who has given any thought to this subject has his or her idea.

Before the cows go out to pasture, each municipality will probably be required to consider a flood plain ordinance.

If one looks far enough into the future, flood plain legislation might become a new requirement to be considered by developers who are pushing into almost all municipalities hoping to sell new homes and apartments. A new development with asphalt roadways might create a flood plain where one never before existed.

ASPARAGUS HAS A FUTURE

Despite the fact that asparagus yields have dropped to an all-time low, that fusarium is an almost impossible disease to control, and that in 1972 there was little profit for many growers, I take the stand that there is a future for the industry.

A pilot project conducted at the South Jersey Research Center over a three-year period has proven that with some changes in marketing, the public still wants New Jersey asparagus.

Plans are already underway to expand the pilot plant and put it on a commercial basis. These plans will be unveiled before the 1973 harvest season begins.

SWEET CORN

If one is turning from high-labor-cost crops for 1973, sweet corn looks promising. Based on sales in 1972, the demand in New Jersey was greater than the supply.

Growing sweet corn at a profit, though, calls for more planning than many crops.

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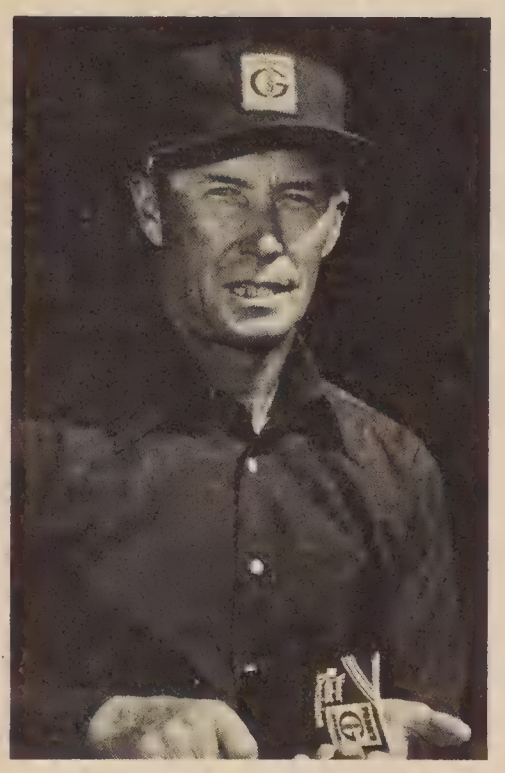


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Agricultural . . . . .

(Continued from page 6)

mends substitution of a regulation requiring existing wells to meet a purity standard as determined by periodic test.

11. **Education** financing needs a gradual shift from real property tax to a more equitable tax levy.

12. **Eminent domain**, as might be expected, received the most space in CAO recommendations. Some of these called for:

a) More adequate information to property owners.

b) Need for settlements to include consequential damages, and full settlement (or official impasse declared) **before** construction begins.

c) At impasse, condemning agency to pay 75 percent of best offer within 30 days. If court verdict exceeds original offer by 15 percent, condemning agency must pay **all** court costs.

13. **Landowners' rights** include reimbursement for damage by persons using land for recreation, as well as reasonable freedom from liability. The idea should be promoted that all persons using private land for recreational purposes must do so by permission of the landowner.

14. **Milk marketing** improvement requires more realistic pricing of Class II milk, and sharing among **all** farmers the costs of clearing the market. The State's milk promotion law is supported, as is a proposal to curb by law destructive milk-price "wars."

15. **Minimum-wage** recommendations call for regulations that will not eliminate the young or handicapped from employment, and request that state minimums not exceed federal. Farmers need to receive credit for fringe benefits where minimum wage rates are calculated.

16. **Harassment** of growers by the OEO's Legal Services Corporation is deplored.

17. **Dairy inspection**, at farm and plant, should be administered under one agency . . . and interstate inspection should be unified.

18. **Seasonal-labor** housing codes change like a yo-yo. There should be a ten-year period for a structure to be acceptable (once it has met all standards) before the owner is forced to make major structural change. More representation by growers is needed on governmental advisory groups having impact upon seasonal-labor laws.

19. **Workmen's compensation** is mandatory on any New York farm with an annual payroll of $1,200 or more. High costs should be investigated, and the decisions of the Workmen's Compensation Board subject to review by the courts. Farmer representation is needed on the Board.

These, then, are the top-priority issues as seen by the members and leadership of 21 agriculturally-oriented organizations in the Empire State.

BIRD'S EYE VIEW

The world looks marvelous today,
No morning blahs or blues.
Everything is bright and gay . . .
I haven't read the daily news!

— Maurine Martin

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And what it'll take for you to grow cleaner corn than in 1972. When wet weather caused many herbicides to fizzle out early.

For dairy farmers, who don't have time to cultivate, it means going with AAtrex®.

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Let's look at it this way. The lowest rate on the AAtrex label is 2½ lbs. per acre. But some farmers have been using even less.

And some years they get away with it. Some years they don't.

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You'll get control of foxtails and most annual broadleaf weeds.

Control all the way to harvest.

This year. Next year. Every year. Whether it's wet or not.

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Agricultural Division, CIBA-GEIGY Corporation, Ardsley, New York 10502.

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...because it's the single-blade rotary cutter designed for low H.P. tractors!

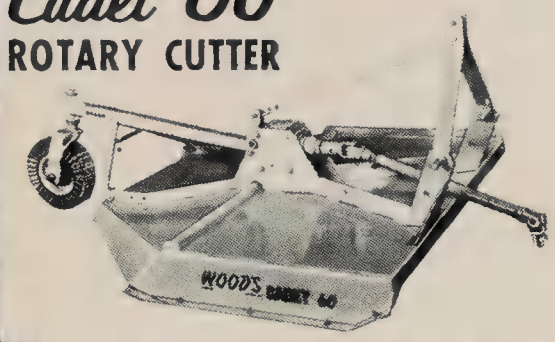
...because it's built by the most experienced manufacturer of rotary cutters!



Pull-type wheels may be carried in center or trail at rear.

Mounts all standard 3-pt. hitches — IH 2-pt. fast hitch — AC snap coupler.

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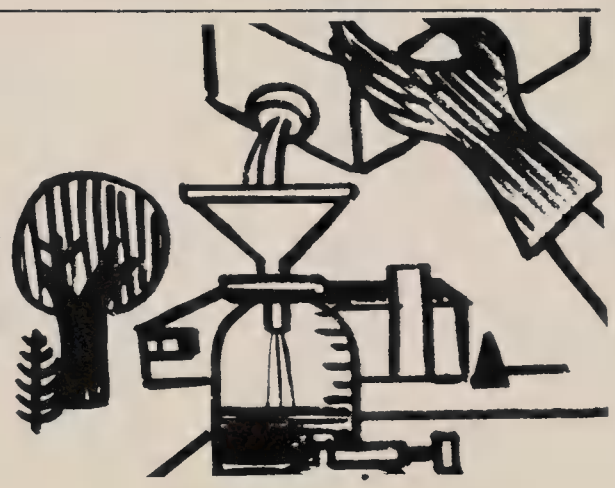


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Mix Only What You Need



U.S. DEPARTMENT OF AGRICULTURE

Dollar Guide

For The Northeast Farmer

COMMON MARKETING AGENCY (CMA) is name for organization that will assemble and market milk from 11,000 members of Northeast Dairy Cooperative Federation and Dairylea Cooperative ... expected to become operational about April 1. Applies only to farmers in the Federal Order 2 Marketing Area (N.J.-N.J.). Substantial gains in marketing efficiency are forecast.

MILK QUOTAS have been ruled unconstitutional by Supreme Court of Canada. Of great concern to Canadian dairymen is possible loss of the capitalized value of quota ... up to $3,000 per cwt. prior to Court ruling.

MAPLE SYRUP producers in New York State are now required by law to apply for a "food processor" license, as are honey producers. Producers of 250 gallons or less of maple syrup, and 2,000 pounds or less of honey, may be exempted from the license fee ... depending on final decision by state government.

FEED GRAIN PROGRAM has been drastically changed. Option "A" reduces required set-aside from 30 to 25 percent for full participation; Option "B" reduces it from 15 to 0 percent for partial participation at reduced payment. Mandatory set-aside for 1973 wheat has been reduced to 0.

USDA hopes to reduce set-aside acreage to about 16.5 million acres (compared to 37 million last year). Sign-up period at ASCS offices ends March 16.

BLEND MILK PRICE in the Connecticut Milk Marketing Order is predicted by Dr. Stewart Johnson of the University of Connecticut to hit $8.11/cwt. next September. He forecasts an average 1973 blend price there of $7.55/cwt.

Even so, he predicts 1973 net farm income to be the same or below 1972 because of rising costs.

FERTILIZER PRICES will be up this spring compared to past years. Shortages likely to develop in phosphates, and perhaps even nitrogen. Get plant food lined up ahead of planting.

DAIRYMEN in Pennsylvania turned down (by vote of 9,894 to 5,972) a proposal to assess all producers 5 cents per cwt. for milk promotion and product development.

NEW JERSEY farmers still pay highest average real estate taxes per acre($23) in nation. But the farmland assessment program has helped reduce farmland losses to urbanization from 50,000 acres per year (1960-65) to 10,000 acres per year (1969-72).

U.S. CORN CROP in 1973 likely to be a whopper ... growers' intentions indicate a 7-percent jump over 1972 in acreage planted. Crop predicted to be bin-busting 6 billion bushels. Production of all feed grains combined expected to be up by 8 percent over 1972 levels.

NATIONAL FARM INCOME in 1972 ($19 billion) was up very sharply from 1971 ... and well above the record-high of $17.7 billion set in 1947.

FARM FUTURES is name of new publication that tells farmers how to use commodity futures market to hedge prices. Write to publication at 534 North Broadway, Milwaukee, WI 53202.

PAYMENT ON A FARM MORTGAGE should be no more than 20 percent of the milk check ... if buyer is paying the taxes and insurance on the property. The percentage of gross income available to dairymen for debt repayment continues to narrow.

CORRESPONDENCE COURSES in agriculture are being offered to residents of any state by Penn State University. For free details, write: Correspondence Courses, 202 Agricultural Education Building, University Park, PA 16802.

Changed barn

Why does a farmer move from a stanchion barn to a free-stall and milking parlor complex? Ask ten farmers and you will probably get ten different answers . . . but for us it was simply a matter of adjusting a farm program to a more efficient, better balanced means of achieving the potential of a particular situation.

To me, a farm operation depends on the proper balance of five factors, which you might think of as spokes in a wheel. These, simply stated, are: labor supply, tillable acres, machinery, number of producing animals, and the barns or facilities for taking care of them. To achieve a reasonable amount of success, one must have these five items in more or less proper balance.

Adequate

We did have a highly-adequate stanchion barn erected in 1952, with cow stalls four and a half feet wide, individual drinking bowls, rubber mats, maternity pens, and individual calf pens. Well-insulated and well-lighted, it was a joy to work in, and at the time it appeared that the 48-cow stanchion barn would be our final major construction job for a lifetime.

However, by 1960, the spokes of our balance wheel had changed somewhat. More acres had been added, which . . . combined with better seed and more fertilizer . . . forecast that more feed could be produced for a much greater number of animals. The line of equipment had expanded slowly to larger machines.

The labor supply had not increased appreciably, but man-hours which had been spent with the chicks and laying hens in our poultry operation could be diverted to the care of dairy animals as we approached the moment of decision to go out of poultry. The fourth spoke . . . dairy animals . . . was growing as calves and heifers were increasing in number. To get the proper balance, we had to enlarge barn facilities.

Production

With a herd average of 17,300 pounds, many thought that we were crazy to build a milking parlor, instead of an addition to the stanchion barn. In 1960, there was only one herringbone parlor in the county, but to me (who had a start of arthritis of the spine, plus a pair of aching knees) there was no question of the proper direction. To build more of what had been in use for a hundred years or so didn't appear to be the correct way, and so we dismissed the idea of a conventional barn.

The milking parlor, a five-on-a-side herringbone, and the adjoining milkhouse (the fifth one our local electrician had wired for us since 1941) was the key to the whole new complex. With it came flexibility, which we never had in a stanchion barn. It didn't matter whether we ran fifty cows through those doors . . . or one hundred . . . or two hundred. There would be little more cleaning up to do and no extra pipeline to wash.

For the first couple of winters, we used the stanchion barn to house the milking herd . . . in conjunction with an older barn to accommodate the excess numbers which were now in the milking line. Although a bit clumsy, it worked out fairly well, and actually combined the advantages of milking in a parlor with being able to care for the cows on an individual basis.

As we phased out of producing eggs, a summer laying-house was converted to house seventy-six free stalls, along with a hay storage area. By keeping dry cows in the stanchion barn, we were able to get to 1968 before another free-stall barn for ninety-six cows was built. By this time, the milking herd had grown to 160-170 cows, and had rather balanced out the farm operation, as outlined previously. Annual production for the past two years has stayed in the range of 15,000 to 16,000 pounds of milk per cow.

By this time, my oldest son, Dean, had joined me in the farm business, and with two very dependable employees, our labor force has remained unchanged.

A passing thought on free-stall operations . . . culling is not as sharp as in a stanchion barn situation. A farmer with the latter has room for just so many, and as first-calf heifers enter the herd, he is forced to eliminate his poorer cows to make room. With free stalls, a few cows over your actual number of stalls does not create a problem, and therefore a farmer is apt to carry cows which may be below herd average, but still profit-makers.

From observation of many different herds, it would appear to me that a farmer should not fear that a change to free stalls and milking parlor will substantially lower his herd average or his profit. Good feeding and good breeding are still the first essentials, and the good herdsman will succeed in either type of facility. If the spokes of the wheel are more or less in proper proportion, he can be optimistic about the success of his operation, and in a good way of life. — *Donald Hanks, Salem, New York.*

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Exclusive Deutz air-cooled diesel engines eliminate down time caused by radiators, water pumps, hoses. Air-cooling permits internal cylinder temperatures 100° higher than liquid-cooling. You get more efficient combustion—less carbon build-up and exhaust smoke—fuel savings of 20% or more, compared with liquid-cooled diesels. Cooler oil temperatures for better lubrication, longer engine life.

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Pollution – Are dairymen and dairy companies responsible for a great deal of pollution? Apparently the general public doesn't think so.

In a recent nationwide survey conducted by an impartial polling organization for the United Dairy Industry Association, over 80 percent of the replies were highly favorable to dairy farmers on the question of pollution, and nearly three-fourths plumped for the dairy companies.

In fact, only three or four percent strongly faulted dairymen and dairy companies for serious pollution. The sample polled was composed of 3,500 males and females over 13 years of age.

Milk Film – "River of Milk" is a new 30-minute film produced at the University of Vermont. It reviews briefly the history of Vermont's agriculture, then focuses on modern dairying.

For details contact: Publications, Morrill Hall, University of Vermont, Burlington, Vermont 05401.

Farm Award—Dairyman J. Allen Baker, Bedford, Pennsylvania, was winner of a 1972 Ford Farm Efficiency Award (forage award) for 1972. Baker has 125 acres of alfalfa and puts it all up as hay. In his area he gets only three cuttings per year, but harvests 6 to 8 tons per acre on a dry matter basis. He also puts in about 75 acres of corn each year, which yields over 20 tons of silage per acre.

Milk Meter – It's likely that within a few years, the present use of calibrated gage rods for measuring farm bulk milk will be replaced by vehicle-mounted metering systems. A new truck-mounted metering system, first of its kind in the nation to commercially measure milk, has been developed at Penn State and approved by the Pennsylvania Bureau of Standard Weights and Measures.

Following examination by the National Bureau of Standards, a working prototype of the system is used as a basis for commercial payment to farmers selling milk to the University creamery.

Well Greased – The world's largest butter-making facility is located in an AMPI plant in New Ulm, Minnesota. In 1971, it turned out 48 million pounds of butter from two continuous churns.

Yellow shafts of butter flow steadily from these giant churns . . . at the rate of 4½ **tons** per hour!

Veal Raising – For those presently engaged in veal raising, or for potential growers, Provimi has made available a new "Veal Raising Manual." This 20-page, plastic-bound manual will provide the commercial calf grower with seven easy-to-follow steps for making money on the farm . . . full or part-time. The manual can be obtained by writing to: Provimi, Inc. (U.S.A.), Shem Road, Watertown, Wisconsin 53094.

Better Breeding – A recent addition to the staff of Progenetics, Inc. Ithaca, New York, is Stanley H. Wiggin, a specialist for many years in the development of genetic material to be used in improving dairy herds through the selection of top sires. He has been with Sire Power, Inc., of Tunkhannock, Pennsylvania, and its predecessors, for the past 25 years.

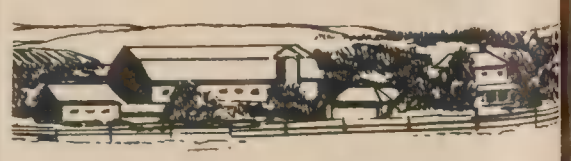
In his new appointment, Wiggin will continue to assist dairymen in genetically upgrading their herds. However, he will now work to improve the breeding programs that are applied, rather than to develop the individuals to be used in these programs.

Although he expects to work mainly with herds in southern New England and southeastern New York, he will be available as a herd evaluator and genetic consultant wherever his services are requested.

Fly Trap – Relief may be in sight for dairymen and horsebreeders whose businesses are threatened by the horse or deer flies that plague their animals each summer. A mechanical trap that can capture and reduce the number of flies in a given area has been designed by Cornell entomologist LaVerne Pechuman.

Dairy cattle attacked by the flies often show a drop in milk production, but to the horsebreeder, track manager or stable owner, the presence of horse flies poses an even worse threat, since the pests serve as carriers for equine infectious anemia and transmit the disease with their bite.

Pechuman's fly trap takes advantage of some of the fly's unusual behavioral traits to lure them into the trap, where they are done in by an insecticide.





$Ca(NO_3)_2$ is much more than a great fertilizer*

*Many high-value vegetable crops require improved calcium levels for maxium yield and disease resistance



University studies and field practice show Calcium Nitrate's vital role in correcting or reducing vegetable plant disorders.

For years, leading vegetable producers have recognized the unique fast-acting advantages of nitrate nitrogen. What is becoming increasingly evident is the essential contribution to plant health that calcium provides. Calcium Nitrate, $Ca(NO_3)_2$, supplies nitrate nitrogen and 380 lbs per ton water soluble Calcium, for a unique combination of plant nutrients.

Lettuce tipburn completely controlled with Calcium Nitrate foliar sprays.

Thibodeau and Minotti[1] at Cornell have noted conditions of rapid growth and corresponding calcium stress on susceptible tissue of young, heart leaves in development of lettuce tipburn. Their laboratory controlled foliar application of $Ca(NO_3)_2$ every other night during this growth period ". . . completely controlled lettuce tipburn." This treatment was not practical for field use, but established that tipburn is related to calcium deficiency.

Cabbage tipburn incidence shown to have direct relationship to Calcium level in soil solution.

Maynard, Gersten and Vernell[2] at the Univ. of Mass. studied cabbage varieties cultured in sand under various calcium solution levels. They noted, ". . . Calcium content increased significantly (in the head, wrapper and basal leaves) with increased Calcium level in the root media . . ." and tipburn was completely controlled at high Calcium levels.

Table 1	Spring	Fall	
Ca level Meq/1	Lang. Aut. White	Lang. Aut. White	Glory of Enkhuizen
1.25	2.25	2.25	1.25
2.50	1.50	1.50	0.25
5.00	0.75	0	0
10.00	0	0	0

The effects of Ca level on the severity of internal tipburn of cabbage as measured by a rating system (0 = absence, 1 = slight tipburn, 2=moderate tipburn, 3=severe tipburn).

White heart, hollow heart and blossom-end rot of watermelon reduced with $Ca(NO_3)_2$ side dressings.

Volk and Gammon[4] in a Florida study of side dressing materials on Congo watermelons noted ". . . Combined imperfections, including white heart, hollow heart and blossom-end rot were numerically less where Calcium Nitrate was used in 3 side dressings of 15 pounds nitrogen each as compared to urea, nitrate of soda, or ammonium nitrate as N sources . . ."

Carrot cavity spot related to low Calcium level.

A Univ. of Mass.[5] study using 0.5, 1, and 2 standard nutrient solutions indicated ". . . that a deficiency of Calcium caused by a low level of Calcium in the media, or by a high total nutrient concentration, induces the disorder of carrot roots known as cavity spot."

Many physiological disorders are at first stages of understanding.

There is increasing evidence of calcium deficiency related disorders on many other row and field crops, as well as deciduous fruits. These include Southern stem blight of tomato, nutritional leaf roll of Irish potatoes, petiole collapse of soybean, sloughing and splitting of snap beans, apple bitter pit, cork spot of pears, blossom-end rot of tomatoes and peppers. Thus $Ca(NO_3)_2$ as your fertilizer choice for the finest, fastest source of nitrate nitrogen will also provide an extra margin of insurance where crop health requirements include adequate calcium levels.

As with any agricultural chemical application conditions vary from season to season and by locale. Consult your extension office or other advisory service for recommended practice that meets local crop and soil conditions.

1. Thibodeau, P. O. and P. L. Minotti "The Influence of Calcium on the Dev. of Lettuce Tipburn" J. Amer. Soc. Hort. Sci. Vol. 94, No. 4, July 1969.
2. Maynard, D. N., B. Gersten and H. F. Vernell, "The Distribution of Calcium as Related to Internal Tipburn, Variety, and Calcium Nutrition in Cabbage," Mass. Agri. Exper. Sta., Amherst, Mass., July 1964.
3. Wm. Sims, J. Welch and T. Little, "Celery Production in Calif.," Calif. Agr. Exp. Sta., Circular 522.
4. Volk, G. M. and N. Gammon, Jr., "Comparisons of N Sources as Side Dressings," Fla. Agr. Exp. Sta., Journ Series No. 2053.
5. Maynard, D. N., B. Gersten, E. F. Vlach, and H. F. Vernell, "The Effects of Nutrient Concentrations and Calcium Levels on the Occurence of Carrot Cavity Spot." Amer. Soc. for Hort. Sc. N. 78, p. 339.

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Viking Ship Calcium Nitrate is manufactured by Norsk Hydro, Oslo, Norway.

LIVESTOCK



Easier Calving – Mating two-year-old heifers to bulls of one of the smaller breeds would help cattlemen avoid many of the calving difficulties associated with mating young cows to large sire breeds, report Agricultural Research Service scientists.

In tests at the U.S. Meat Animal Research Center, cows bred to Hereford, Angus or Jersey bulls experienced less calving difficulty than those bred to Charolais, Simmental, Limousin or South Devon sires. Overall, Hereford cows had more difficulty than Angus or Jersey.

Cow age also had a significant effect on calving difficulty. The younger the cow, the more difficult the birth. And calving difficulty had a definite adverse effect on rebreeding.

Officers—August Andersen of Long Eddy, New York, has succeeded Merritt Howard of Forestville, New York, as president of the state's Hereford Association. The dues structure of the organization was recently changed to a flat rate of $10 per year.

The New York Simmental Association is now a going concern . . . Murray Pulver of Amenia is president. The group plans an annual meeting and sale April 11.

Sheep – A report summarizing 15 years of sheep research at Auburn University, Alabama, includes these points:

1. In their ability to lamb early, ewes with a high percentage of fine-wool ancestry surpassed ewes having more medium-wool breeding.

2. Lambs fed on elevated slotted floors gained almost twice as fast and required about one-third less feed than similar lambs fed on conventional dirt floors.

Inner Knawing – Whipworms can cause scours in pigs, reports Dr. E. A. Batte, North Carolina State University veterinarian. He recently identified whipworms as a primary cause of 21-day scours.

Dr. A. C. Todd, University of Wisconsin swine parasitologist, reports that nearly every hog farm visited in a recent 324-farm survey had worms.

Both recommended routinely worming with a broad-spectrum material . . . pigs at weaning time (5 to 6 weeks of age), and again 30 days later . . . sows 7 to 10 days before breeding, and again 7 to 10 days before farrowing.

Bull Test – A new group of 27 young bulls are undergoing performance testing at the New York State Bull Test Station at Emmadine Farm in Poughquag. Twelve Hereford, 7 Angus, 3 Santa Gertrudis, 3 Simmental, a Polled Shorthorn and a Charolais bull have started the winter test. Eighteen New York, and two out-of-state breeders are represented.

In the recently-completed summer test, a Charolais bull owned and bred by Robert Scott of Hannibal, New York, was tops with an average daily gain on test of 3.64 pounds per day. With the test station in its second year of operation, this bull has outperformed all others to date.

Second best was a Santa Gertrudis entered by Robert Eastman of Ithaca, New York. This bull gained an average of 3.57 pounds per day on the 140-day test.

VEE – Secretary of Agriculture Earl Butz has declared an end to the national emergency declared in July 1971, when Venezuelan equine encephalomyelitis (VEE) spread into the United States from Mexico and threatened this nation's horses. The outbreak was successfully confined to only 26 counties in southern Texas. Not a single case of VEE was confirmed in the U.S. in 1972.

But it could happen again. "All horse owners should have their horses and other equine animals vaccinated for VEE," Butz warns. "Similar circumstances could again occur under which the disease could spread into the United States."

Handbook – The latest in sheep breeding, nutrition, health and management is covered in the 225-page SID Sheepman's Production Handbook, now in its fourth printing. Send for your copy to: Sheep Industry Development, Inc., 200 Clayton Street, Denver, Colorado 80206. Price: $6.50 per copy.

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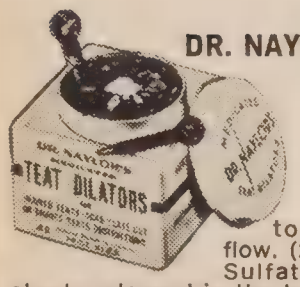
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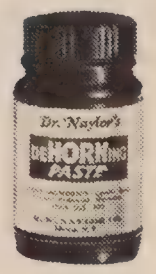
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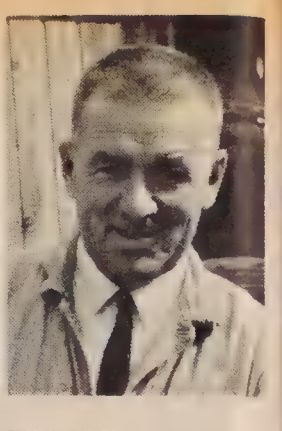


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Doc Mettler comments on:



Diagnosing an ulcer

THE medical dictionary defines diagnosis as "the art of distinguishing one disease from another." Despite all the research that makes a science of the prevention, control and treatment of disease, the success of these three things still depends on diagnosis, the art.

Laboratory tests can add a little science to diagnosis, but when your veterinarian is standing there in your barn in his boots and baggy overalls trying to figure out why your cow won't eat, conceive or milk, or why she limps, he still depends on experience, skill, intuition and his five senses.

If he uses laboratory tests, he depends on his experience to tell him which ones to use, and then they only confirm or disprove his diagnosis. With an acutely sick animal, lab tests are of little value because of the time element.

More Difficult

Late winter makes the art of diagnosis more difficult. Even with the the newer knowledge of nutrition, some of the most baffling cases a veterinarian sees are at this time of year. This year in particular will be difficult because of the poor feed from last summer's rain-damaged crops.

Poor-quality feed, lack of sunshine, poor ventilation, and constant changes in temperature and humidity can all be lumped into one factor called stress. Today's dairy cow is bred to produce twice the milk her predecessor thirty years ago did, but to make this larger amount of milk and to keep from developing diseases that were seldom seen thirty years ago . . . such as ulcers . . . she needs better care than her predecessors.

Ulcers in the dairy cow are usually found in the fourth (or true) stomach, known as the abomasum. This is the same stomach that becomes displaced. On occasion, they are also said to be found in the small intestine, and though I remember only one autopsy that showed this, I wonder how many "half sick" cows with intestinal ulcers I have misdiagnosed.

The abomasal ulcer in the cow is a classic, but like a good mystery story, it is easier to understand in retrospect. The typical case will become acute and be noticed soon after calving. Here is where intuition comes in.

Top Producer

The cow will be apt to be a better-than-usual producer, a little too fat, and perhaps will have been dry more than two months. She may become a little "picky" on grain and silage just before calving, but will freshen normally.

About the time you move her into the milking line and expect her to be past milk fever danger, you notice she's down on milk and off feed. You put your hand on her and she feels cold and damp. Here is clue number one. A milk fever cow feels cold to touch, but not damp.

If you take her temperature, it might be 103.2 degrees, instead of a typical milk fever 100.5 degrees. On the other hand, it might be way down to 97 degrees, or even lower. While you are thinking about giving her a bottle or are waiting for the veterinarian, down she goes. If the veterinarian is in a rush and does not have his guard up, he may take your diagnosis as milk fever and treat her as a milk fever.

Chances are that as the calcium runs in, he will develop a hunch that all is not quite as it should be. The cow's abdomen may appear distended with fluid instead of the typical milk fever bloat. Her ears won't pick up and her eyes don't water as the calcium goes in, and he will remember that the blood was dark and yet watery as he placed the intravenous needle. He will check her color by turning back her lips and may notice that she is pale or a sickly blue gray color. Her mouth will feel like that of a dead cow.

Downer Cow

If she gets to her feet after the calcium treatment, she will soon be down again and in a few hours will be dead. If she has not gone down yet, it will be noticed that the calcium does not help much and she may literally steam. In a few minutes to hours, she will go down, and like the cow already down, in twelve hours is apt to be dead.

Autopsy will reveal great quantities of fluid and/or blood in the abdominal cavity along with food particles. A hole the size of a dime or even a nickel will be found in the abomasum. Usually, other ulcers that have not perforated will also be found in the abomasum.

No Perforate

What about the cow with an ulcer that does not perforate? The ulcer may erode through a blood vessel and the cow will bleed into the stomach. If she bleeds a huge amount she will die, perhaps so fast that no one even notices she is sick until she is dead. Or, she may feel cold to the touch, pass black manure the consistency of old crankcase oil, and appear pale when her lips, gums, eyelids or vulvar lips are examined.

At this stage, a couple of gallons of blood as a transfusion may save her. However, unless the ulcer can be healed this is apt to be only a temporary help.

I don't know of any really dependable treatment for an ulcer, even if it has been diagnosed before it reaches the fatal stage. I do know of lots of things that will make a cow

already a little sick with an ulcer get worse and die. First thing, of course, would be the old epsom salts purge. Second, and just as bad, would be a big dose of one of the cortisone-like drugs.

Mild treatment with antibiotics, intravenous fluids and tiny doses of cortisones, along with milk of magnesia, stimulants and good hay, may help. However, if the diagnosis was made and the cow got better, how could the veterinarian be sure that the treatment helped or that his diagnosis was right in the first place? My personal feeling is that mistreatment is far worse than no treatment at all.

Several years ago we were treating a cow that had been diagnosed as a displaced abomasum case. We had her on her back and were doing the classic ventral approach, surgical correction. While my partner was stitching the abomasum to the belly floor, he discovered a large ulcer ready to break through. What to do now?

We did not have enough fine gut or instruments available to cut the ulcer out and restitch the stomach, so my partner decided to simply turn it in and suture the stomach wall so as to bury it. The cow, even though she was twelve years old, made an uneventful recovery and two weeks later was milking in the seventies.

Not Diagnosed

It would have been nice to say that I or one of my partners had been experienced enough to diagnose this ulcer before opening the cow for displacement, and that we had operated to correct the ulcer. Apparently this has been done by some, but it is rare enough to warrant writing it up in the journals. We were happy just to have been lucky enough to spot the ulcer once the cow was opened.

In ulcers, as in all disease, prevention is the thing that pays. The increased incidence this winter, as compared to the past few years, leads one to believe that poor forage has much to do with ulcers. The same things that prevent displaced abomasum, milk fever, acetonemia and other calving-related diseases should help to prevent ulcers.

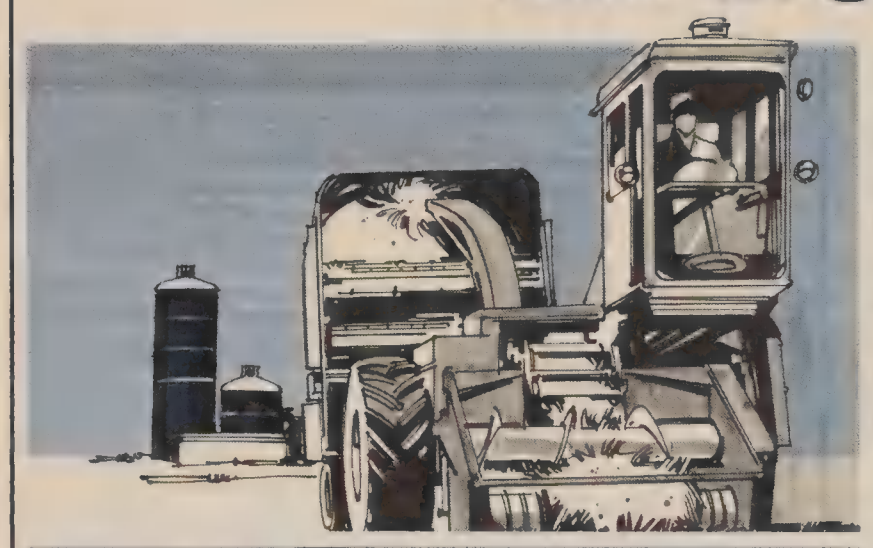
To review these: **Don't** get dry cows too fat, don't over-grain dry cows, don't push dry cows with unusual feeds. **Do** feed plenty of good, yet coarse hay, keep minerals balanced and use vitamin A, D and E injections if your veterinarian feels they are needed.

I know that good hay is almost impossible to find this year, but try to keep what you can find for your dry cows. Most important, don't give every cow that has freshened and is a little picky a dose of corticosteroid just in case she might have a little acetonemia. In fact, don't give the stuff at all unless your veterinarian examines the cow first.

Spring will come, the sun will shine and the grass will show green again. Some day the summer of '72 and winter of '73 will be just something to talk about when those younger than we complain that dairying is a rough business. Some day we will look back and think, "We got through that one, now we can stand against anything!"

Avoid the rainmaker! Stop the backbreaker!

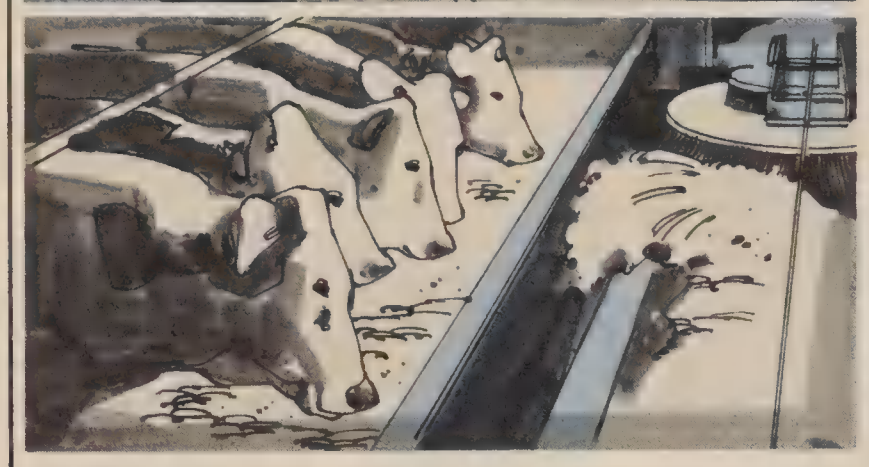
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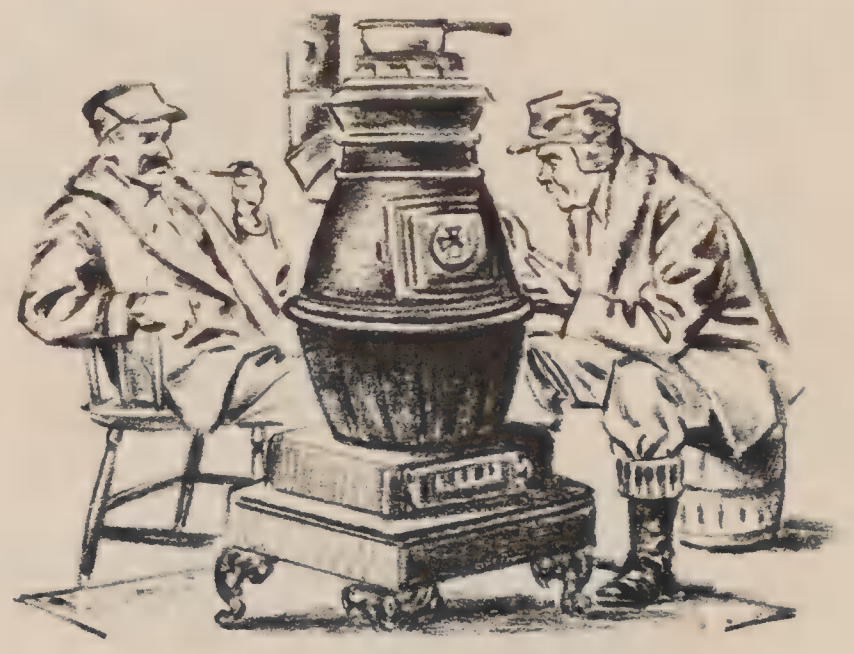
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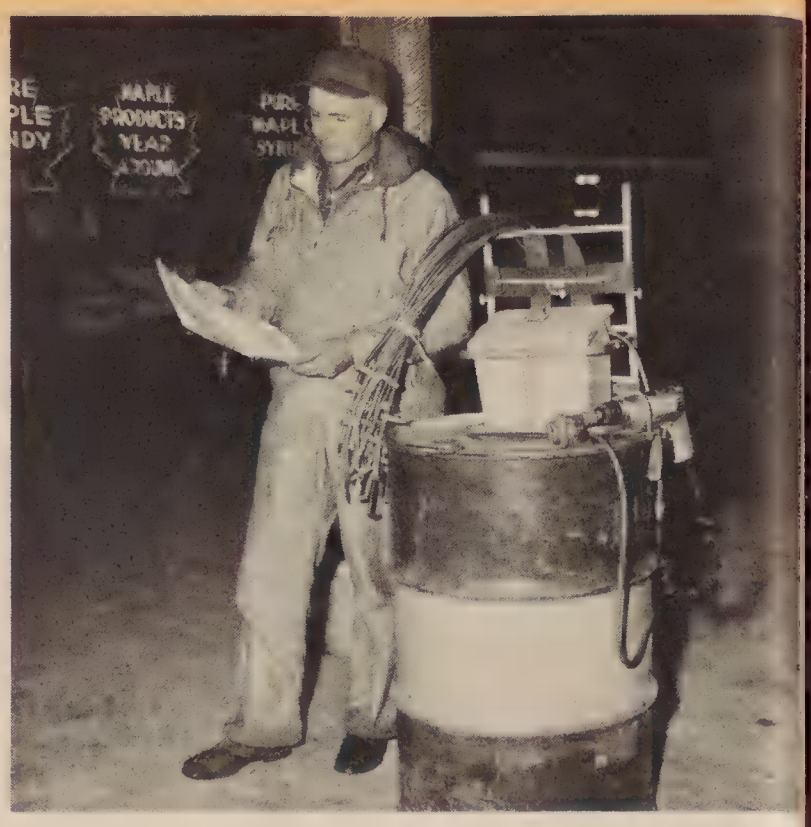
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by E. R. Eastman



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Harold Tyler of Worcester, New York, studies map showing location in the woodlot where tagged plastic lines are to go.

Better syrup-making from..

The tube in the forest

by Raymond T. Foulds, Jr.*

PROBABLY the earliest experiments with plastic tubing in the sugar bush occurred in 1954, when Nelson Griggs of the Vermont Bureau of Industrial Research at Northfield began cooperative experiments at the Proctor Maple Research Farm in Underhill, Vermont, with quarter-inch tubing made of polyvinyl chloride . . . the same as was used in hospitals for blood transfusions. Soon after this, other experiments were done by Vermonters George Butler and Halsey Hicks at Jacksonville, and by George Breen at Jamaica, in cooperation with the Minnesota Mining and Manufacturing Company . . . and at Liverpool, New York, by Robert Lamb & Sons (assisted by Lloyd Sipple of Bainbridge, New York and C.O. Willits of the USDA).

Early spouts used were either metal or plastic, the plastic usually being nylon. It was assumed at first that extra slack was needed in tubing lines to allow for possible damage by freezing, by deer, or by falling branches. Thus, extra tubing was looped through brackets on the spouts or allowed to hang slack.

It was also assumed that the tubing system had to be vented at some point so that air locks would not prevent the flow of sap. Experience later showed that these theories were only partially true.

Pumps

Some of the early sugar makers who were familiar with pumps also deduced that they could be used in pumping sap through tubing. The "wet" type of pump might be used, where the sap passed through the pump . . . or the "dry" type, where the pump pulled a vacuum on a tank with the help of a venturi, and sap flowed into the tank in response to the vacuum.

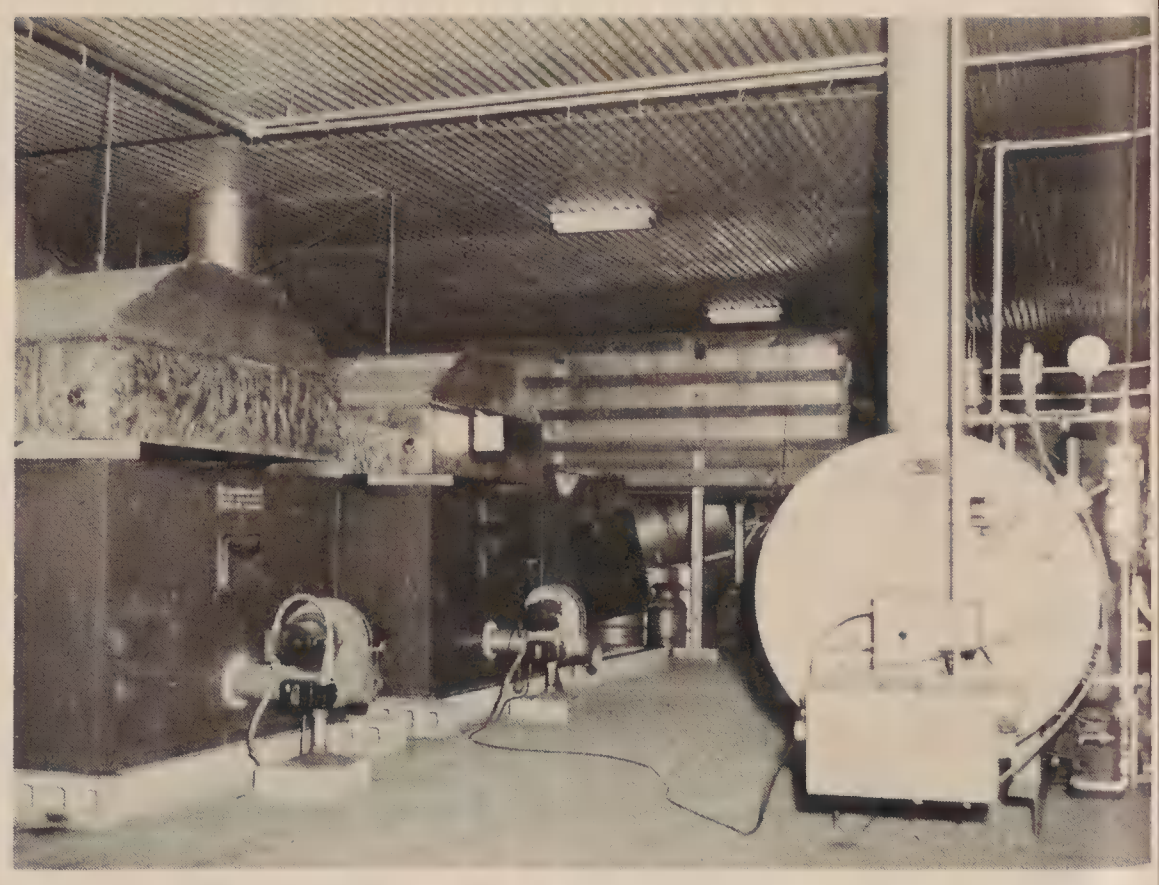
One of the earliest systems was hooked up by Gerald Caron of Westford, Vermont, in 1966. He used a milking-machine pump, an old syrup drum for a vacuum tank, and a release valve connected to his half-inch conduits. The pump was run during periods of sap flow, and greatly increased sap production.

Shortly after Caron's experiment, other tests were made of pumping systems at several places in the Northeast.

One of the first questions any sugar maker using buckets is likely to ask about plastic tubing is whether

*Extension Forester, University of Vermont

(Continued on next page)



Gerald and Kathryn Lyndaker of Balsam Creek Farm near Croghan, New York, use plastic lines in their sugar bush to supply this modern boiling apparatus.

r not it results in better sap production than buckets. Research workers at Underhill, Vermont, answered this at the Proctor Maple Research Farm as early as 1961, when they found that properly-hung plastic tubing gave 55 percent more sap than buckets . . . providing that the "18-inch drop system" was used. This meant that the tubing dropped an average of 18 inches from the spout to the tee which connected it to the lateral line. Such a drop prevented back pressure on the taphole caused by sap backing up in the line. It also prevented reabsorption of sap when a cooling period occurred at night. This was a distinct improvement over methods which had called for loops attached to clamps and the connection of one spout directly to another.

Plus and Minus

Other comparisons of buckets with tubing made by MacDonald College in Quebec, and at Cornell's Arnot Forest, showed increases in sap production when tubing was properly used. It was found that tubing also kept the sap cleaner, reduced the time required for gathering when labor was needed for boiling, and avoided the loss of sap when buckets overflowed during the best runs of sap.

Disadvantages were the occasional damage when rodents chewed the plastic spouts, difficulty with hanging the tubing during cold weather, problems with washing the tubing when the season was over, and the necessity for additional storage capacity for sap at the sugarhouse.

Soon after tubing began to become popular, a controversy arose as to whether it was better to let air into the tubing system through the spouts, which was known as "venting" . . . or whether it was better to keep the system closed. Early advocates of venting claimed that sap would not run in closed systems because of air locks which developed, especially in large installations and where conduits went down steep slopes and through depressions.

This question was investigated at several colleges, and by the U.S. Forest Service. These scientists found that a closed system gave 33 to 55 percent **greater** sap production than the vented system.

It appeared that the superiority of closed systems . . . which were hung so as to take full advantage of gravity . . . was due to the fact that the enclosed sap column pulled a vacuum on the tapholes and sucked more sap than would be the case without such a condition. Closed systems which dropped from the taphole to the ground, with lateral lines running along the ground, however, were only slightly superior to similar, vented lines . . . and they developed very little vacuum.

Questions

Another question raised by some producers was whether it was better to drop tubing from the spout to the snow or ground and let the laterals run downhill along the ground, or to suspend the tubing. Studies made over the years seemed to show that this depended largely on the quality of labor available, and on snow conditions.

(Continued on page 22)

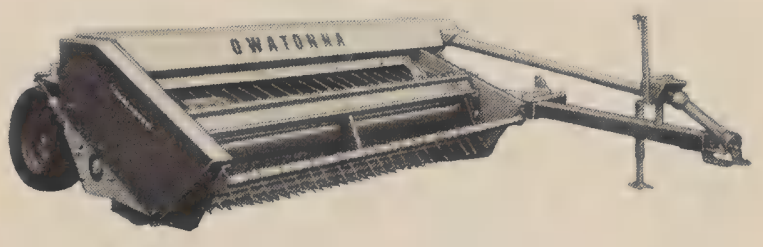
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Forest Tube . . . . .

(Continued from page 21)

It took less planning and figuring to drop the tubing to the ground . . . and, if venting was used (and the slope was good) results would be satisfactory. On the other hand, with tubing dropped onto snow, the sap would freeze at the end of the day, particularly in dips where the line ran through depressions. A fall of snow could then cover the line and it would not thaw, thus sap could not run through it again unless it was pulled back on top of the snow.

The "ground system" also required much more tubing than the suspended system, and back pressure could build up whenever the tubing had to go over a stick or rock, or out of a hole. With snow depths of two to four feet, which occurred in much of the northern part of the maple country, the suspended system became almost a "must." For best results, it was installed with the help of a hand level or Abney level to insure a slope of at least two percent from one tree to the next.

Profitable Pumps

The next question was whether or not the extra cost and trouble connected with using pumps could be covered by increased sap production. It was one thing to do it experimentally, but was it practical on a commercial basis?

A series of experiments indicated no significant difference in sap output in most cases unless a high vacuum was used. This meant a vacuum of 15 inches of mercury or more.

In 1967, tests at the Northeastern Forest Experiment Station found that sap yield on 171 trees increased **385 percent** with vacuum pumping. A jet pump with venturi was used and a vacuum of 13 inches of mercury was obtained at the tapholes (15 to 18 inches of mercury vacuum at the pump). When the experiment was repeated in 1968, a **250 percent increase** was obtained.

Other similar experiments at the Proctor Maple Research Farm showed significant increases in production from high-vacuum pumping, especially during times when gravity flow rates were low. The high vacuum could suck sap from the tree in a way that could not be achieved by the force of gravity. A problem, though, was that pumps heated up and sap pumped by them became so warm as to change color.

Improved Output

It now appeared that production of sap could be considerably improved by pumping through plastic tubing with high vacuum, but a method was needed which would not lower the quality of the sap. A dry pump system with a vacuum tank, including a second centrifugal pump which pulled the sap away from the vacuum when the tank was full, was developed by Warren Mitchell, an equipment dealer at Newport, Vermont.

This unit was tested at the Proctor Maple Research Farm in 1969 and 1970. It produced significantly greater volumes of sap than the gravity system, and there appeared to be less deterioration of sap than when the wet-type jet pump was used . . . although the dry pump also seemed to get very hot at times. At other times, it was necessary to heat the pumps with 250-watt bulbs to prevent freezing, and on very cold nights it was necessary to drain the centrifugal pump and the tank.

More Tests

In 1970, further tests were conducted at the Proctor Farm. Production of the gravity system was 9.6 gallons of sap per tap; high vacuum pumping, 16.7 gallons per tap. The amount of sap, and the quality of the sap and syrup, were practically the same whether from jet-type pumps or dry pumps.

The syrup produced from high-vacuum sap was essentially the same in quality as that produced from gravity-flow sap. High-vacuum pumping apparently did not significantly affect the chemical composition of the sap, except for some differences in the manganese values.

Other tests by Cornell researchers found that closed suspended gravity tubing systems gave significantly greater sap production (from 45 to 118 percent more) than vented suspended or ground systems. However, they found that differences were very slight with small numbers of taps on gradual slopes.

On steeper slopes, they found that more tapholes were needed . . . perhaps as many as 100 per line of 5/16-inch tubing . . . to get maximum vacuum. Best results were obtained with closed suspended tubing on 10-percent slopes with 50 taps per line. The maximum natural vacuum measured was 21 inches of mercury.



Gerald Caron of Westford, Vermont, developed one of the earliest vacuum pumping systems in 1960.

Robert Morrow's results at Cornell with pumped vacuum compared to natural vacuum indicated that differences occurred most significantly on flat lands or shallow slopes. The more vacuum obtained, the better the sap production. With 40 to 50 taps per line, the average amount of increase in sap production by pumping (over a gravity system) was 65 percent.

He concluded that additional sap production in an average season, whether in a gravity system or a pumped system, depended upon the level of vacuum . . . and that gains of one to two quarts per taphole could be expected for each inch of vacuum achieved. The better gains were achieved with pumped vacuum, good seasons, and high-production trees.

The sugar maker contemplating

(Continued on page 23)

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Festival — Something you won't want to miss . . . the annual Schoharie County Maple Festival, April 28-29 at Jefferson, New York. Among many events planned for your entertainment: a model saphouse in operation (and the sale of maple products), displays of antique gas engines, hobby and craft exhibits, pony rides, lumberjack contests, a parade, and an old-fashioned country hoedown.

Pancakes, sausage and pure Schoharie County maple syrup will be served all weekend. Lots of other eatables, too. Ample free parking at the nearby Scotch Valley ski area, with free shuttle bus service to the Festival.

By April, there'll be spring in the air, so let your fancy take you to the quaint New England-style hamlet of Jefferson for a day, or an entire weekend. The area has plenty of tourist facilities; early accommodations can be made by writing the Schoharie County Maple Festival, P. O. Box 24, Jefferson, New York 12093, or the Schoharie County Promotion Department, P. O. Box 327, Schoharie, New York 12157.

More Giants — After September's item about New York State's biggest trees, we heard from Helen Bigarel of Hailesboro, St. Lawrence County, about her 25-foot, 1-inch willow tree. The tree has been checked by state forestry men and she's been told it's the largest tree in the state.

From another area of the Northeast, James Mooney of Brimfield, Massachusetts, wrote to tell us about the historic sycamore tree in Sunderland, Massachusetts. Judged to be well over 500 years old, and quite probably the oldest living thing in the Northeast, the Sunderland Sycamore's circumference at breast height is well over 20 feet, with an evenly balanced height and spread of more than 100 feet. The tree is in a fine state of preservation, says Mr. Mooney, and a wonder to see.

Chestnut — The American chestnut was swept from the earth by a blight many years ago. However, foresters have long hoped that the natural selection process might lead to the survival of a specimen that would be resistant to the disease.

A candidate for this distinction is on the farm of dairyman Harry Murphy, who lives at the intersection of State Routes 370 and 380 in the hamlet of Victory (Cayuga County), New York. The tree is 3 feet 6½ inches in circumference, stands 76 feet tall, and has a crown spread of 40 feet.

Murphy's address is R.D. #2, Red Creek, New York 13143.

Wreath Manual — A unique bulletin published by Maine Extension is "Christmas Wreath Maker's Manual" (#501). Single copies of this popular publication are free both to residents and non-residents. Bulletin #458, entitled "Growing Trees in the Home Nursery," is also available on the same basis. Requests for these publications should be addressed to: Mailing Room, PICS, University of Maine, Orono, Maine 04473.

Forest Tube . . . . .

(Continued from page 22)

the use of tubing always wonders about the cost. Willits and Sipple estimated the installation cost in 1961 at $1.25 per tap. In Vermont, it was estimated that a suspended gravity system for 1,300 taps could be installed for approximately $1.62 per tap in 1969. The cost included storage tanks, paint for marking trees, and labor at $2.00 per hour.

Morrow also kept a record of costs, and found that costs per tap in 1966 to 1972 came to $.89 per tap per year at one location, $1.17 each at another. With sap values at the sugarhouse assumed to be 6.5 cents for sap with two percent sugar, 9.0 cents for 2.5 percent sap, and 11.0 cents for 3-percent sap, he computed that (with the costs at 90 cents per tap) a sugar bush with 2-percent sap sweetness would have to produce 15 gallons of sap per tap to break even. At the 2.5-percent level, 10 gallons of sap per tap would break even.

Discouraged

Some sugar makers become discouraged when they find how complicated it is to plan and set up a system of plastic tubing that will operate properly, especially where pumps are involved. However, they soon find that equipment dealers are helpful, as are county agents, service foresters, and consulting foresters.

In Vermont, at least three consulting foresters now offer the service . . . for a fee . . . of setting up plastic tubing systems, and later taking them down and washing them. Such a service may come in handy for busy dairy farmers who also want to produce syrup.

Labor costs can be spread out, and sap production increased through the use of plastic tubing and pumps. Success depends on the careful study of available information, adequate planning, and the patience to work toward eliminating the "bugs" that occur in any new installation. The reward will be a sugaring installation that will produce more high-quality syrup than ever before.

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YORK, PA.	$1.00	$ .75	$ .25
WATERTOWN, N.Y.	$1.24	$ 96	$ .28
BINGHAMTON, N.Y.	$1.16	$ .89	$ .27
UTICA, N.Y.	$1.20	$ .93	$ .27
WORCESTER, MASS.	$1.21	$ .94	$ .27
RUTLAND, VT.	$1.23	$ .95	$ .28
BURLINGTON, VT.	$1.27	$ .98	$ .29
KEENE, N. H.	$1.23	$ .95	$ .28
NASHUA, N. H.	$1.24	$ .96	$ .28
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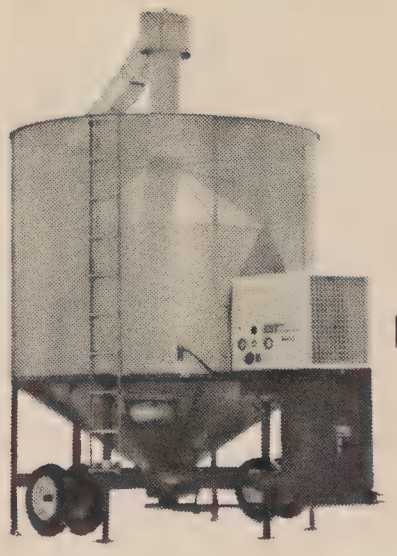
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George Weisbrod and Gordon Teska built cement-floored freestalls in their new barn . . . shown here under construction.

by William Quinn*

Some dairy cows have

Boardinghouse blues

DAIRY barns and boarding houses have a lot in common. A dairyman, like the boarding-house owner of yesteryear, earns his reputation and success by how well he provides his guests with "bed and board."

Generally, cows have been giving dairymen straight "A's" in the boarding department. The grades they award for bedding have been going the other way!

The reasons for this poor report card are fairly evident . . . bedding is scarce and expensive. In many intensive dairy areas in the Northeast, straw is now more costly than hay.

Declining

One reason is that the acreage of small grains in the Northeast is steadily declining. In New York State, in the 10 years between 1959 and 1969, oats, barley and wheat acreage plummeted from 896,000 acres to 436,000. The result . . . more than 450,000 acres of straw once used for bedding has disappeared.

In the last few years, dairymen have finally become convinced that small grains, planted as "nurse" crops, are really **competitive** crops. With the herbicides now available, "clear" seeding has developed a good track record . . . and dairymen have been quick to adopt it. The success of this technique for establishing expensive legume stands is now further accelerating the decline in small grain plantings.

While the supply of straw has been on the way **down,** our Northeast horse population has been on the way **up.** A burgeoning growth in the number of our equine friends is putting increased pressure on the available supply of straw.

The wood by-product picture is not much brighter. While in certain local areas supplies of sawdust shavings and wood chips may be satisfactory, in much of our northeastern dairy country these bedding products are hard to come by. In a few short years, what the lumber industry once considered a waste product has become a valuable commodity for making pressed board and other materials. Furthermore, freestalls are handily bedded with wood by-products, and growing numbers of freestall barns exert growing pressure on the available supply.

What do dairymen, faced with a shortage of bedding, do about it? Unfortunately, some do nothing! Many use hay the cows have picked over and refused . . . with the kind of hay we have in the mows this year, the cows should be up to their knees in bedding! Some purchase uncut stands of old meadows, or bale up pasture clippings to provide bedding for their cows. Others have invested in rubber mats in an attempt to minimize bedding needs. Some freestall operators use only sand.

Are there other untapped sources of bedding materials that can be salvaged to replace the traditional straw or sawdust? What absorbent, inexpensive, and expendable materials . . . preferably with good insulating qualities . . . are available to dairymen in this area?

Well, on many acres in the Northeast, where corn is grown for grain, thousands of tons of cornstalks are returned to the land unused. It would do them little harm to stay under a cow awhile before going back to the soil. Chopping this material for bedding may be a partial answer to our bedding shortage.

How about other kinds of unused waste material? A pair of Cornell animal scientists, Dr. William Merrill and Prof. James Burke, tackled the problem a few years back. Noting that more than 400 pounds of paper per capita are produced in this country yearly, most of which ended up as scrap or wastepaper, they selected this as one product for their trial.

(Continued on page 26)

*Bill Quinn is a county Extension agent in Onondaga County, New York. He recently received the Distinguished Service Award from the National Association of County Agricultural Agents.

Jesse and Jerry Thompson won County honors for 1971 when their herd came through with a record of 16,568 pounds of milk and 628 pounds of fat.

"When Jim talks ideas, we listen . . . because we know he's really talking profits."

Jesse and Jerry Thompson, a father-and-son team, farm 165 acres in Huntingdon County, Pa. With just 80 tillable acres, they produce enough forage to support a milking herd of 80 holsteins.

They attribute much of their success to Jim O'Bryan, who is their Agway Dairy Enterprise Salesman. In Jesse's words:



Jim O'Bryan, Agway Dairy Enterprise Salesman, is a familiar sight on the Thompson farm.

"Working with Agway and listening to Jim has helped us go from 12,000 lbs. to 16,568 in the last four years . . . and from 450 to 628 lbs. of butterfat."

"Jim is probably the most important member of our management team," adds Jerry. "He has a great knack for coming in and evaluating what you have to work with . . . and then working with you to make the most of it. But I guess that's what Agway Dairy Enterprise is all about."

"For instance," explains Jesse, "to support our 80 cows, we used to rent 90 tillable acres in addition to our own 80. But with the new forage program Jim helped us work out, we don't need to rent anymore. So we are now milking the same 80 cows on half the acreage . . . 80 cows on 80 acres."

"What's Jim's biggest contribution to our operation?" asks Jerry. "I'd have to say it was getting us on the Agway Total Dairy Ration Program. But there are many other things . . . like crops management.

"One thing I do know is that we're now producing a lot more milk with a lot less labor on a lot less land."

If you'd like to strengthen your farm management team with someone like Jim O'Bryan, just call your Agway Dairy Enterprise Salesman. Any time. You'll find he has some good ideas which can mean profit for you.

Farm Enterprise Service AGWAY

Boarding . . . . .

(Continued from page 24)

A second product, tire cord waste, was also included in the study. This material is a by-product of reclaiming rubber from auto tires.

These two products were tested against the traditional standards . . . wood shavings and straw . . . and the cows ranked on appearance. Their conclusions . . . all four materials were satisfactory for keeping cows clean and comfortable. Cost of both the paper and cord was competitive with the other two.

There were some problems, however. The tire cord waste made a spongy and comfortable pack, but was difficult under the hind feet. (A rear curb might have solved this problem.) Also, the tire cord waste was commercially shipped in 600-pound bales, a little too heavy for most dairymen to handle in the barn!

The paper was chopped with a forage hammermill equipped with 1.5-inch screen, powered by the pto of a four-plow tractor. Capacity was about 1,500 pounds of paper per hour. One of the main problems with the chopped paper was handling it after chopping . . . because of its bulky, fluffy condition.

Tested

Both bagging and baling were tried, with less than optimum results. The researchers concluded that if paper were chopped on the farm, it might best be handled by blowing it into a forage wagon or a storage near the cows. In commercial production, special paper balers might be used.

Still other bedding materials are yet untried, but may be pressed into use. Some companies are planning to market equipment for recycling manure, removing its moisture, and saving the solids to be used as a bedding material.

Other materials are already commercially available, but expensive (peanut hulls, for example). Transportation costs are an important item in all off-the-farm sources of bedding. Therefore, the supply needs to be reasonably close to the point of use.

Operators of freestall units, faced with a scarcity of bedding, have come almost full circle. Many are now cementing the surfaces of their stalls. Given a choice in the matter, no cow with any intelligence is going to select a hard concrete stall over a nicely-bedded one.

A study at the University of Vermont bears that out. The Vermont cows, who were no slouches in the brains department, chose the bedded stalls first, sand or clay loam second, and concrete stalls, even those with rubber mats, came in a poor third.

But if there's no bedding, how can you have a "nicely-bedded stall"? Perhaps the more relevant question is not, "Which stall surface do cows prefer?" . . . but rather, "Is a concreted freestall satisfactory from the standpoint of cow cleanliness, mastitis control, and minimum udder and hock injury?"

Many dairymen have decided it is, and are backing their decision with dollars. They've already concreted their stalls. These dairymen cite an added advantage to the hard-surfaced stall . . . not only does it save bedding, but it eliminates the constant problem of filling the foxholes (perhaps they should be called cowholes) that cows dig in clay or sand. Having the stall floor raised also eliminates the danger of cows getting caught under the stall dividers.

Example

Jim and Bob Cleverly of Warners, New York, who first cemented a few freestalls on a trial basis, now have gone the whole route . . . putting all of their 100 high-producing Holsteins on concreted beds. Bob explained, "We'd fill the stalls with dirt and the cows would get it out. For instance, one time we put in 40 yards of clay . . . at least, it was **supposed** to be clay. In three weeks it was as bad as before."

They poured the concrete three inches thick . . . "just in case we wanted to take it out" . . . with a surface slope of about three inches from front to rear. "At first we had a little trouble getting the cows to use them, but we put a little dirt on them, and they soon started.

"We don't use much of any bedding," Bob continued. "We sprinkle a 20-gallon cardboard drum of chopped straw in the stalls every day. It keeps it a little drier where the back feet are. The cows are about as clean as they were before, and they get up easier. I don't think they've any more bruised hocks, but I wonder if we're not getting a few more injured teats.

"We may need to insert a 2′×10″ or 2′×12″ at floor level to close up the stall partition to the level of the first divider pipe. The cemented platforms are higher, and I wonder if some cows don't stick their leg over in next stall and cause udder injuries."



Albert Johnson has freestalls with concrete floor, each topped by a rubber mat.

Enthusiastic

Ted Scott and Sons of Moravia, New York, have also cemented in their freestalls, and are enthusiastic about the results. "We think it's really the way to go. It takes some sawdust, but not as much as it did before. They don't dig holes, and I think they stay cleaner than they did before."

Neighboring dairyman Bill Randolph has also tried some concreted

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The rotating platform delivers each cow to the operator. Once he attaches the milker unit, the new Agway Sta-Rite Reflex Arm takes over. When milking is complete, vacuum shuts off, the arm removes the milker from the udder and retracts it out of the operator's way. Milk flow of each cow controls duration of the milking cycle. No system available to dairymen has ever been so fast or so easy to operate.

Here's how automatic milking works

Ⓐ Cows are firmly but gently moved into prep stalls by the automatic crowd gate.

Ⓑ The prep stall automatically washes and sanitizes each cow's udder prior to her stepping onto the rotating platform.

Ⓒ The operator attaches the milking unit. He's free to observe each cow's health and general condition.

Ⓓ Dependable, heavy-duty components drive the platform.
Rotational speed is adjustable from four to eleven minutes per rotation.

Ⓔ Sta-Rite's Reflex Arm automatically shuts off vacuum when milk flow stops, gently removes milking unit and raises it out of the way.

Ⓕ Cow steps off platform at exit and another takes her place in this continuous, automatic system.

stalls . . . half with mats, half without. He now plans to cement the rest of his 115 stalls, using conveyor belt for matting.

"I'm going to give it a whirl. It comes in 5-feet widths. I've noticed the cows seem to use the matted surface before the bare concrete. I can't see where we've gotten any injuries, although I thought we might. Also, I think concrete will get rid of some of the mastitis bugs that live in wet sawdust."

In Madison County, New York, George Weisbrod and Gordon Teska have cemented all the 178 freestalls in their recently-completed barn. In place of a rigid neckboard, the stalls are equipped with a 3-inch nylon rope to restrain the cows . . . (it stretches when the cow gets up, but it holds her back when she's standing, explains George). Every stall gets scraped off twice each day.

The Weisbrod and Teska operation uses sawdust for bedding (when they can get it). At other times, they chop cornstalks. "I chopped a load with our field chopper recently," George commented. "It had a recutting screen and made a real fine bedding. But I think we'll go to a flail chopper. The material will be coarser, but we'll get more of it."

Cementing stalls, especially when mats are included, does represent a considerable investment. Albert ("Toby") Johnson of Onondaga County recently purchased mats for his freestalls, and figures about $25 to $30 per cow when installed with farm labor. His 42″×60″ mats had a waffle design on one side, a ribbed pattern on the other. He recessed the mats into fresh concrete . . . both for bonding and to provide a flush surface.

"We had to adjust our neck boards once we raised that stall surface," reported Toby. "I think maybe the cows have to do some adjusting to get used to the hard surface. One nice thing . . . we're not getting stones in our liquid manure tank anymore. And I think there's less problem with sediment in milk with concrete stalls," he added.

Mats (whether of new or reprocessed rubber) and belting are not the only materials tried for stall surfaces. One dairyman I know even used old snowmobile treads.

Other dairymen have tried carpeting in both stanchion and freestall barns. The material may not react the same way in the two different kinds of barns. In a freestall unit, cows enter the stalls mostly when they wish to lie down. In a stanchion barn, they are confined to the stall in winter almost the entire day. The amount of wear the carpet receives in the two systems may be quite different.

Field Trial

Ralph and Dick Talcott and Robert Osterhoudt, all of Cayuga County, New York, cooperated in a Cornell-sponsored field trial testing various types of freestall surfaces. Astro-turf, two kinds of mats, and two kinds of carpeting (indoor and indoor-outdoor), as well as plain concrete, were among the six different treatments tried.

Preliminary observations indicate that the Astro-turf, while appearing very durable, may be somewhat harder to clean. Carpeting, too, because of its fibrous surface, attracted some manure buildup. Automatic (or at least frequent) cleaning of alleys cuts down the amount of manure tracked into the stalls.



Bob Cleverly worries that concrete beds in freestalls may cause more udder injuries.

Much is still to be learned about stall surfaces. In stanchion barns, mats tend to stretch with use. How mats recessed into concrete will react . . . how well the bond will hold . . . and whether buckling might occur is still unknown.

New Materials

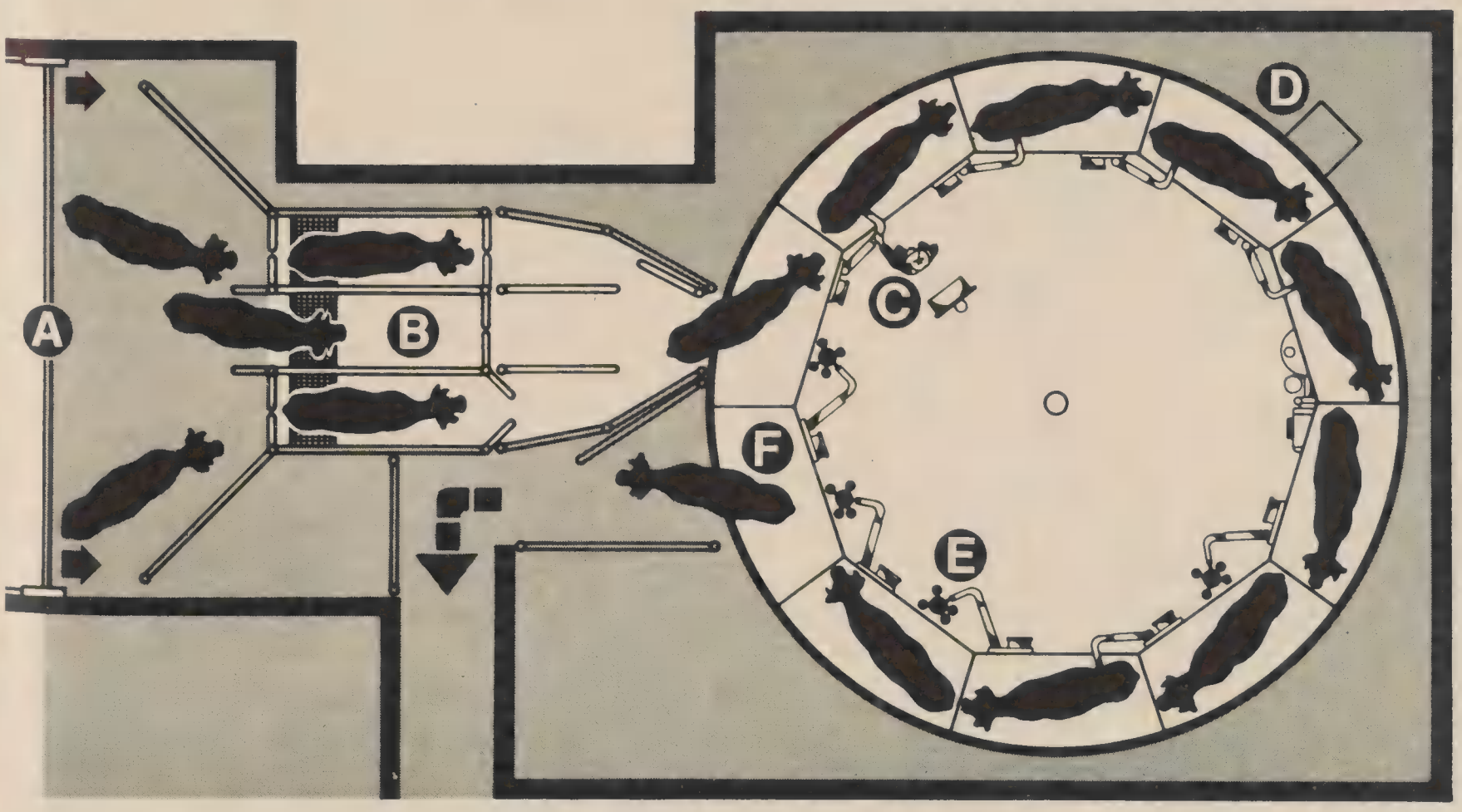
New materials are now being tried . . . sheet rubber bonded to concrete by an epoxy, for example, or poured-in-place synthetic resin mats. Other materials will be tested in the future. Perhaps some product yet unknown may prove to be the ideal surface . . . cheap, easy to clean, with good insulating qualities.

Whatever the cow's bed may be, management will remain the key to keeping her clean under a limited bedding program. Properly-adjusted cow trainers and frequent cleaning of the cow platform are part of the approach for the stanchion-barn man. Dairymen who operate a freestall unit with little or no bedding must clean out their stalls frequently, fill up the holes in dirt-floored stalls, and adopt a manure management program that keeps accumulations out of the alleys.

Even if he has very limited bedding, a dairyman can still run the best boarding house in town . . . if he has the right kind of management.

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Northeast FARM EXPERIENCE



Clayton Sharp is enthusiastic about the recently-built calf nursery.

BELTED SILAGE

Clayton Sharp and son Gene operate a 400-acre farm not far from Elba, New York . . . plus 200 more rented acres.

Their dairy barn has 101 freestalls, housed in a structure originally built for manure-pack loose housing. To put in the freestalls required removing a row of posts . . . so the Sharps cut the posts off about ten feet above the floor and suspended the stubs on top of ⅞-inch steel rods stretched between remaining roof-supporting structures.

Corn silage is fed in a belt-equipped bunk 132 feet long. The belt . . . a used one purchased from a crushed-stone company . . . is reeled out along the bunk (and back) by a single gear-reduction device similar to that once used by many a dairyman to unload false-front silage wagons. "We're on our third used belt in 14 years," Clayton comments.

The silage is beefed up . . . uh, milked up . . . by adding high moisture ear corn stored in a 16 × 50 stave silo. This goes through a Wetmore hammermill blower into the silo.

Dry hay is fed free choice, and 24-percent-protein pellets in the milking parlor. Liquid protein supplement is also available free choice.

The Sharps have tried both sand and sawdust as bedding in freestalls, but now use straw, which they prefer. Plenty of it is available from the 55 acres of wheat normally grown on the farm. Other major crops include 65 acres of cabbage and 43 of sweet corn. A cabbage storage with a 200-ton capacity keeps the work force busy in early winter packing bags of heads for market.

A recently-remodeled calf nursery in the main barn features insulated sidewalls and ceiling . . . supplemental electric heat when needed . . . and individual home-built stalls patterned after a commercial model. Air is pulled in along the outside wall by a fan that exhausts air from the floor. "We should have built it long ago," Clayton says. — *G.L.C.*

CONCRETE STALLS

Cleo Ford of Greenwich, New York, operates a 150-cow dairy farm.

Early one fall morning in 1970, his previous barn fell to the Great Destroyer . . . leveled by a raging fire. He has since built a 94×142-feet free-stall barn with 150 stalls.

An unusual feature is that the rear portion of each stall is concrete . . . measuring three feet from the rear of the stall forward to the end of the concrete. The rest of the stall is gravel . . . and the entire stall is kept well blanketed with sawdust.

"The concrete at the rear of the stall prevents cows from digging a hole," Cleo reports. "And it keeps manure in a place where it can be scraped off easily."

The Fords only own 100 acres of land, but rent 200 to 300 more. "Land has been bid up in price around here so it's tough to pay for it from farming," Cleo comments, "but rental rates remain reasonable."

In common with at least 10 other Washington County dairymen, Cleo Ford is raising his heifers in free stalls. He has various sizes of free stalls, and groups his heifers according to age. — *G.L.C.*

GREENER GRASS

Farmers are as human as anyone . . . often believing that the grass is greener on the other side of the fence. Specifically, they sometimes envy their counterparts in some urban business.

However, Herbert Sugden, Jr., of Mannsville, New York, testifies that all is not roses across the occupational fence. For seven years, he worked for Woolworth . . . three of those years as a store manager. He decided he wanted to farm, and hasn't regretted the decision since coming to this 365-acre (60 cows) farm more than a year ago.

AGWAY FARM ENTERPRISE SERVICE



The fast, low-cost way to control corn weeds or apply Nitan

LET AGWAY DO THE JOB!

Agway's spray service is the ideal way to put down:

- Nitan on corn and grass
- Nitan plus herbicide on corn under the right conditions
- Herbicide on corn

You can count on Agway for specific recommendations that work—and for fast, economical application service. Ask your Agway Enterprise Salesman for full details.

For that all-important early boost...

AGWAY CORN STARTERS

Formulated for your specific needs

No matter what the soil and weather conditions in your area, no matter whether you've made heavy or light or no manure applications, there's an Agway Corn Starter to fit your needs.

And remember—each day of earlier planting can mean as much as a bushel more grain corn per acre at harvest. So be sure to plant early, and use an Agway Corn Starter for the fast start and uniform stands—even in cold soil—that corn must have to produce high yields.

In addition to starter nitrogen for early growth, all Agway Corn Starters provide these other important benefits for an early boost to high yields:

- 1.8% water-soluble magnesium for the plant's early needs
- 0.2% zinc to help guard against a possible deficiency in high pH and high phosphorus soils
- 0.05% boron, contributing much of the plant's needs for this element
- more than 60% water-soluble phosphorus for early root development under cold, wet, early-spring conditions

To achieve all the potential that's bred into your Agway hybrids, plan on putting down an Agway Corn Starter through your planter next spring. Check with your Agway Enterprise Salesman for details.

"I worked an 85-hour work week as a store manager," he comments, "and I didn't see my family very much. Besides, we moved around a lot, so my kids couldn't put down any roots. I have no gripe about the company . . . but I sure enjoy farming as an occupation more than my previous job.

"We have three boys . . . aged 10, 11, and 12 . . . and they love this place. Besides, there is plenty to do so they're not glued to the TV tube all the time! A farm is the best place in the world to raise a family. In the city, a person is just another face . . . here a person has some sense of identity, a sense of belonging."

Satisfaction

Herb goes on, "Here, we can see the fruit of our labor . . . a straight row of fenceposts . . . a crop of growing corn . . . a building we've helped remodel. We struggle to save the life of a calf, and have a sense of accomplishment every time we see that animal in the herd over the years. A person needs to be able to see some tangible fruits of his effort . . . more than just numbers on an operating statement."

He finds similarities, though, between farming and other kinds of business. "A farmer combines capital and management to try to make a profit," he comments. "Business principles are similar in operating a retail store, and in farming. At Woolworth's, I took calculated risks as a store manager in terms of ordering certain quantities of merchandise . . . and I take risks now in farming. I also learned in merchandising to use other people's ideas . . . to pick capable brains for ideas . . . and I'm certainly doing that in farming."

Herb grew up on a small farm, but farming has changed dramatically since then. He depends on neighbors, county agents, and agribusinessmen for information about modern farming. Apparently, his sources of information are good ones, for he reports a "whale of a corn crop" in a year when corn in the Northeast was generally nowhere near up to par.



Herbert Sugden, Jr., Mannsville, New York, has a special building for raising calves. It's 150 × 36 feet (50 × 36 is hay storage), has six inches of insulation in the ceiling and three inches in sidewalls. Calves are in slat-floored individual stalls for two months, then move to pens grouped by size, finally to stanchions (13 are 3 feet wide and 4 feet long; 15 are 5 long and 4 wide). A gutter cleaner makes cleaning a simple job. Herb's wife, Betsey, and his sons are in charge of the calf and heifer enterprise . . . and he credits them with doing a great job.

Herb (right) and county agent Terrance Solan visit about the facility.

In his first 13 months, the herd at Sugden Farms moved its DHIC rolling herd average up from 11,500 pounds per cow to 13,158 pounds. Maybe one of Herb's advantages is that he doesn't have a lifetime of experience to "unlearn" before adopting new practices.

In any case, the Sugdens are convinced that the grass is greenest on the farm . . . at least as measured by personal satisfaction and appreciation of living. — *G.L.C.*

ALL SILAGE

John Molodich and his five sons operate a dairy farm, headquartered on Ekonk Hill near Moosup, Connecticut. They have 500 head of cattle, including young cattle and dairy steers . . . typically milk around 200 cows at any given milking.

In an unusual arrangement, dairy steers run with the milking herd, and eat the same ration. The herd is handled "in bulk" . . . no grouping by production level. Dairy steers are topped out as they reach market weight . . . a recent load brought 35 cents a pound.

John has been one of the pioneers in an all-corn feeding program. Most eastern Connecticut dairymen now feed corn silage as the major, or only, roughage . . . but this has been a development of the last decade.

Total Ration

It was in the middle 60's that the Molodich feeding pattern was changed to what is now referred to as a "total ration" . . . feedstuffs combined before cows have access to them. Cattle now have free access to the ration in feed bunks.

"Our total ration contains about 16 percent protein," John comments. "It includes corn silage, ear-corn silage, protein supplement (49-percent-protein-soybean), and a non-pelleted grain mix with 23-percent protein.

"I prefer a non-pelleted grain because it seems to me that our butterfat test is three points higher as compared to feeding a pelleted ration," John continues. Typical

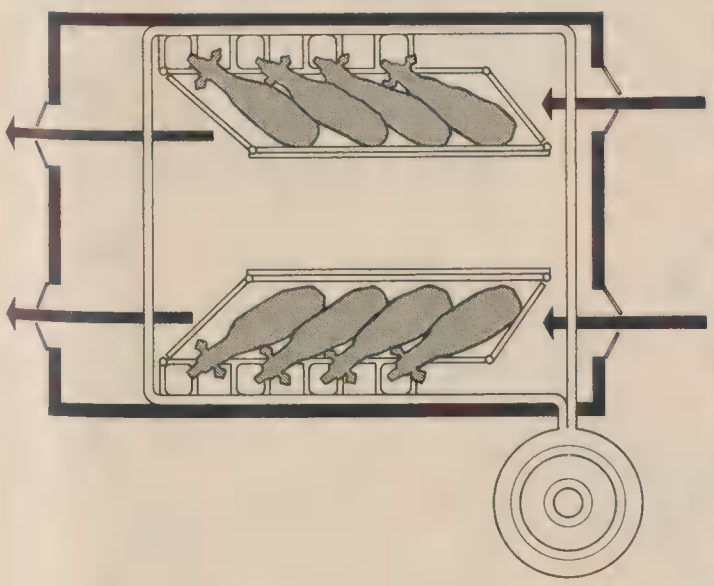
(Continued on page 30)

AGWAY FARM ENTERPRISE SERVICE

AGWAY

Agway Sta-Rite takes the bumps and bruises out of milking

Sta-Rite's Full-Comfort Milking Parlor lets animals move in and out faster, safer. Ends the problem of bruising or cracking pinbones. Straight-through design gives each cow the room she needs. The udder is close to the operator, and all milking equipment is within reach. A Full-Comfort Parlor installs in far less time than it takes to get most others into operation.



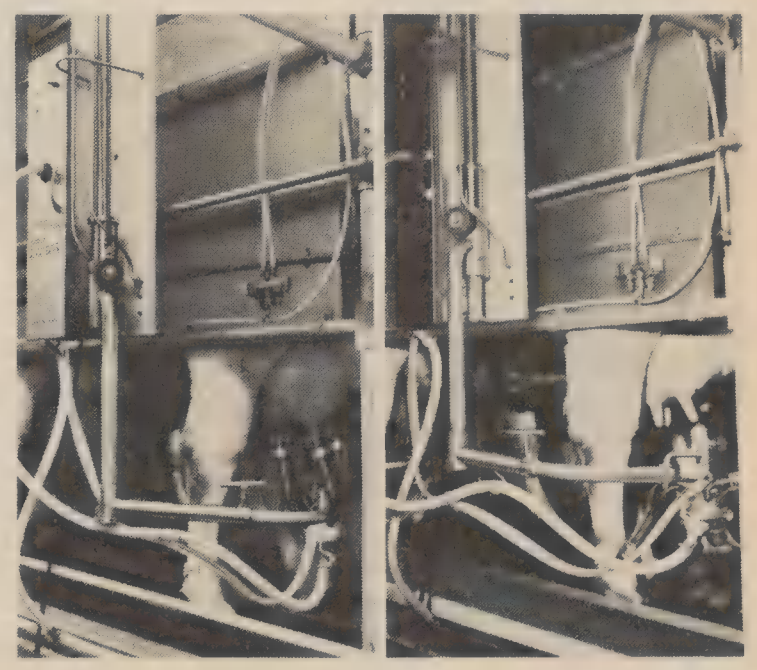
Agway brings quality milking to the stanchion barn

You can enjoy quality milking in your present barn without expensive rebuilding or remodeling. An Agway around-the-barn pipeline system is the answer and once you've used it, you'll wonder how you ever got along without it! Agway will design and install an efficient, time-saving, economical system to fit your present facilities, with glass or stainless steel lines. Bring your stanchion barn up to today—with Agway.



Agway Sta-Rite eliminates the guesswork on when to remove the milker

The Sta-Rite Reflex Arm can be installed in almost any parlor to make milking faster, easier and more dependable than ever before. Attach the milking unit and the Reflex Arm does the rest. Monitors the milk flow from the udder. Shuts off the vacuum when the milk flow stops. Removes milker unit from the udder and retracts it. The Reflex Arm lets you spend more time with cows that need it, do a better job of teat washing and sanitizing, and milk more cows per hour.



Silage . . . . .

(Continued from page 29)

annual production per cow is in the 13,000-to-14,000-pound range.

Silage storage includes five 20×60 uprights, plus a huge concrete pad for stack storage. "We can normally store corn from 150 acres on the pad," John reports (he planted 475 acres in 1972). In addition, there is a 150×40-feet bunker silo at another farm which can be used, if needed. Urea is added . . . to provide the building blocks for ruminant protein creation . . . as the silage corn goes into silos.

Rent Acres

In common with most farmers in the area, the Molodich family rents considerable acreage . . . owned and rented land add up to a 1,000-acre operation.

Because 1972 was a bad year for planting and growing corn, John decided to bale some hay and rye to extend his roughage supply. These roughages provide the fiber needed to keep a ruminant animal performing well. When needed for feeding, the bales are run through a Gehl recutter and blown into a silo . . . then combined with the ingredients already mentioned . . . to become a part of the total-mixed ration.

With an emphasis on corn, the farm obviously must grow corn on some fields for consecutive years. "We've grown corn after corn for as long as 30 years on some fields," John comments. "For a time, we quit plowing and used a big disc harrow to prepare corn ground . . . but we now plow land at least every four years, finding that plowing at least that often does help yields."

The basic corn fertilizer consists of 1,500 pounds per acre of bulk-spread 15-10-10, normally before discing. No fertilizer is added by the planter. The standard herbicide for corn here is 1.5 pounds of Aatrex plus 2.5 quarts of Lasso per acre.

The boys run a "kindergarten" for about 100 calves at a farm nearby the home place. They're put down there right after vaccination, and then at an age of 8 to 10 months, come back to the milking-herd barn to eat from the bunker feeder. Whether at the other barn, or with the milking herd, calves eat the same total-mixed ration as do the milking cows. — *G.L.C.*

FRUIT TESTING

William Blackburn operates a fruit farm located on Route 104 near Medina, New York. He has 130 acres of apples, plus some 30 acres of cherries and peaches.

As president of the New York State Fruit Testing Association, Bill has been involved for a number of years in trying out new varieties . . . as many as 200 different apple varieties have been growing on his farm at one time! He was chairman of a committee charged with the responsibility for naming an apple resulting from the cross of MacIntosh and Red Delicious . . . the new Empire variety. He now has 3,000 Empire trees of his own.

There are Association members in every state of the territorial United States, plus many foreign countries. They evaluate new varieties for many characteristics of importance to commercial growers.

Four dependable families of seasonal workers pick apples each year at the Blackburn farm. Bill's wife, Catherine, serves them coffee and cookies in the orchard at about 10 a.m. each working day . . . something the Blackburns heartily recommend for its positive impact on worker morale and effectiveness.

Bill used Ethrel on a quarter of his Macs in 1972, and was amazed at its effectiveness in promoting faster ripening, a harder apple, and fine color. "Combined with the hormone NAA, this material will do wonders at lengthening out the harvest season for MacIntosh," he comments. Alar is used on later-maturing varieties for similar maturing modification and quality enhancement. — *G.L.C.*

ROADSIDE STAND

Roger Barber farms in the Schoharie Valley near Middleburg, New York. His major enterprise is dairying (140 cows), but his location on State Route 30 has encouraged the operation of a busy roadside stand.

Between 75 and 100 acres are devoted each year to growing vegetables for the stand . . . and to supply a limited amount (especially sweet corn) for sales directly to retail stores. The Barbers grow (in addition to sweet corn) potatoes, tomatoes, cantaloupes, squash, peppers, Indian corn, and pumpkins.

They grow almost everything they sell . . . with the exception of a small amount of garden vegetables from a neighbor. "It always turns me off," Roger comments, "to see a sign saying 'Homegrown Produce' . . . and then see 'em selling bananas and oranges among their wares.

Tourists

"Some of our best customers are non-farm people in the area on vacation, some of whom take back substantial amounts of produce to New York City. We price vegetables a little below the top of the market, but we don't cut prices as much as the market fluctuates. One exception has proved to be a profitable sales pitch . . . we sell day-old sweet corn at 30 to 50 percent off our regular price, which is usually 75 to 80 cents per dozen."

People from cities usually want **big** corn ears . . . after all, they buy sweet corn by the dozen . . . and Roger finds Silver Queen (with a white kernel) to have the size they like. The roadside stand season here usually begins with sweet corn about July 15, and buttons up about November 1 after squash and potatoes are sold.

Interestingly enough, the Barbers still sell a substantial amount of retail potatoes in lots ranging from one to forty bushels per customer. The spuds require most of the limited amount of pesticides applied . . . corn earworm hasn't been enough of a problem so far to require a spray program. — *G.L.C.*

AGWAY FARM ENTERPRISE SERVICE

AGWAY

Regional dairymen announce 4 to 5 tons of alfalfa per acre ...the first seeding year!

Agway's Alfalfa Management Program is the answer. It's based on clear seeding and is keyed to alfalfa yields of two to four tons in the seeding year with goals of up to seven or more tons in the second year.

But many dairymen have reported yields of over five tons in the first year!

The benefits of direct seeding are, of course, more total crude protein, at lower cost, and in the shortest possible time. Read how Agway's direct seeding recommendations turned out for three Northeastern dairymen. Then ask your Agway Enterprise Crops Salesman to explain how the program can work for you—on your farm.



5.15 tons the first year is what Roy L. Miller of Cumberland County, Pa. achieved. He runs a herd of 48 holsteins and currently keeps 75 acres in alfalfa. On Agway's recommendation, he clear-seeded 40 acres in 1971. During the same year, those 40 acres yielded 5.15 tons per acre. In 1972, they yielded 6.5 tons per acre.



The Shephard Brothers of Madison County, N. Y. boast a herd average of 16,202 pounds of milk and 602 pounds of butterfat. In 1971, they clear-seeded 15 acres of alfalfa—again following the Agway program. They harvested 4 tons per acre during the seeding year and 6 to 7 tons per acre the next year.



Willard M. Martin, Jr. runs a herd of 80 holsteins in Oneida County, N. Y. In 1971, following Agway's Alfalfa Management Program, he clear-seeded 14 acres. His yield that first year was 5 tons per acre. The following year—in spite of Hurricane Agnes—his yield was still 4.5 tons per acre.

What's NEW in the FIELD



by Bill Pardee

Nutsedge knock-out

NUTSEDGE, nutgrass, watergrass or whatever you call it, this pest is rapidly becoming the worst weed in the Northeast, creating an emergency situation for many farmers. Long-lived and prolific, nutsedge can knock the profit out of your corn crop and crowd out your new seedings. It's on the increase since it survives many of our present weed control practices, and so comes in where other weeds have been eliminated.

But nutsedge can be controlled both effectively and profitably. Herbicides now on the market can do the job if accompanied by good cultural control practices.

To help pull this together, we've drawn on information from weed control specialists across the Northeast, particularly from Dr. Bill Duke, Cornell agronomist and weed specialist.

First, let's look at this pest and see how it reproduces. It does this several ways . . . through seeds and rhizomes, but most important, through its tubers, or "nuts," formed during late summer and fall. These tubers are like miniature potatoes, complete with "eyes" for multiple growth. They develop along underground stems or rhizomes, many of them forming deep in the soil.

These "nuts" are easily spread by cultivators, plows, tractor tires, or any implement moving through the field or from one field to another. A small spot of nutsedge can be spread over the whole field in several years, if left unchecked.

And because it is so prolific, no one weed control method used alone can knock out nutsedge. Weed control specialists agree that chemicals and tillage together are needed to drive out this pest.

Best chemicals vary, depending on the crop. But most recommendations focus on Sutan and Eptam, two closely related chemicals highly effective on nutsedge. Both are highly volatile chemicals that convert rapidly into gas in the open air. If left exposed on the soil surface for as little as 30 minutes, they'll be lost for all practical purposes. So you'll need to disk or otherwise mix them into the soil as soon after spraying as possible.

Do It Dry

Sutan and Eptam are highly soluble in water and volatilize into the air even faster if the soil surface is wet. So be sure to apply these chemicals only to a dry soil surface.

How dry is "dry"? If dust rises around your boots when you walk through the field, this rule of thumb indicates that the soil is dry enough to apply Sutan or Eptam.

To get uniform spread of the chemical, the soil surface should be somewhat even. A clodbuster behind the plow, or a fast once-over with a disc or drag will usually smooth the surface enough for even application and better herbicide performance.

To head off volatilization in the air, both chemicals should be mixed into the soil within 30 minutes after application. Then the whole field should be reworked crosswise at right angles to the first direction to provide maximum mixing and distribution of the weed killer in the soil.

Best tool for mixing is the disc harrow. New, big double gang discs, hydraulically adjustable for depth and angle, have usually given better chemical incorporation than springtooth harrows. We've seen some good control gained with only a drag for mixing, but we've also seen too many failures. If you're spending good money for herbicide, it pays to use the best equipment available to get it into the ground with the best odds of killing your weeds. Shortcuts can save time, but increase your odds of having weeds come through.

Many successful users of these chemicals have put a spray boom right on their harrow ahead of the disc gangs. Or they have the boom directly behind the tractor, followed up by the disc hitched behind. Either way, they get instant incorporation and no chemical is lost. And since there's no time for volatilization, they don't need to wait for the soil surface to dry.

Recommendations

With Sutan and Eptam as base chemicals, let's look at recommendations for specific crops.

For corn, Bill Duke recommends a mixture of four pounds of Sutan plus one pound of Aatrex (atrazine) incorporated into the soil (as above) before planting. Sutan will control the nutsedge and most annual grasses, while atrazine will pick off most broadleaf weeds.

This mix will knock back the plants developing in one season. But next year you'll be plowing again and bringing up a whole new crop of nuts. These can lie dormant for several years, buried in the soil,

(Continued on page 37)

AGWAY FARM ENTERPRISE SERVICE

new AGWAY RATIO:RIGHT™

FORMULA FEEDS AND CONCENTRATES

balanced to match your forages!

Northeastern dairymen are growing and feeding more corn than ever before in history. As silage, as grain, as high-moisture ensilage, corn is delivering tremendous quantities of low-cost energy to feed bunks on almost every dairy farm.

What has happened to nutritional balance?

Agway nutritionists have found that these high-energy forage programs require an entirely new balance of nutrients and minerals. Balances that have to be met with balanced feeds and concentrates.

Ratio:Right adds the balance!

That's the simple reason behind exclusive Agway Ratio:Right feeds. A new balance of protein to energy to match today's forage programs. A new balance of calcium to phosphate. Of potassium to calcium and magnesium. Now, every Agway feed and concentrate is a Ratio:Right formula and there is at least one that perfectly balances your feeding program.

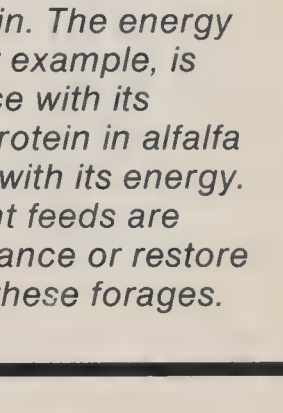
500 lbs more milk . . . $65 more net income per cow!

Proof that Ratio:Right works—Agway tests in 14 dairy herds totalling 338 cows showed that the Agway Total Dairy Ration feeding program, with Ratio:Right feeds, helped increase milk production by 500 pounds per cow per year.

Not only did production increase, feed costs actually declined! The combination built an average added net income of $65 per cow per year. In a 100-cow herd, that represented $6,500 more profit for the dairyman without investing an additional cent.

Ask your Dairy Enterprise Salesman about Ratio:Right and what this new, exclusive Agway concept can do on your farm. Ratio:Right from Agway, the feeds that put balance in your feeding program.

What is the most important nutrient in a dairy ration?



Dr. Kendall Dolge, Agway Animal Nutritionist

The answer to that one is simple. It is the one in short supply! It doesn't make any difference whether it is energy, protein, calcium, phosphorus, vitamins or trace minerals. They all must be present in the right balance. That, of course, is the basis for Agway Ratio:Right feeds.

The nutrients most frequently out of balance or having the wrong ratio in the Northeast are energy and protein. The energy in corn silage, for example, is way out of balance with its protein and the protein in alfalfa is out of balance with its energy. Agway Ratio:Right feeds are formulated to balance or restore the right ratio to these forages.



63-hp Tractor
About $450 more

60-hp 2030
About $450-$500 less

67-hp Tractor
About $500 more

Purchasing Power

...the less you want to spend, the more you need a 60-hp John Deere 2030

If you're in the market for a 60- to 70-horsepower tractor; chances are you are considering one of three different makes—a blue tractor that has 67 horsepower, a red one with 63, or the John Deere 2030 that has 60 horsepower.

We invite you—even urge you—to compare these three tractors, dollar for dollar and feature for feature. You may be surprised at your own findings. The suggested list price of a 2030 can be $450 to $500 *below* the published suggested list prices* of comparably equipped blue and red tractors! The John Deere suggested list price is for a field-ready tractor—complete with PTO, rockshaft with 3-point hitch, a swinging drawbar—even a differential lock you can engage on the go.

Other equipment that is part of the low suggested price includes fenders, a speed-hour meter, a shuttle-shift transmission that has eight forward and four reverse speeds, and 8-position rear wheels.

John Deere also leads in features. The 2030 has a closed-center hydraulic system that develops 15.8 hydraulic horsepower. The 67- and 63-hp competitors have open-center systems that develop less than 9 hydraulic horsepower.

The 3-point hitch on the 2030 senses load changes with the lower hitch links for a fast, accurate response. The blue and red tractors sense load changes through the center link where the implement's length and weight can materially affect the hitch response.

And to get through tough spots with less downshifting, the 2030's variable-speed diesel engine has a 21 percent torque reserve—more lugging ability. The blue tractor has a 13 percent torque reserve, and the red one has only a 7 percent torque reserve.

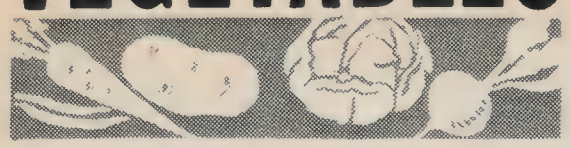
Get more purchasing power now. See your John Deere dealer for a high-performance tractor with modern features and pricing that might save you several hundred dollars. Financing is available.

*Competitive prices as of December 1971 and May 1972

JOHN DEERE

Moline, Illinois 61265

VEGETABLES



New Potato — Hudson, a new boiling and baking potato variety developed at Cornell University, promises to outproduce New York's best table stock potato by as much as 40 percent . . . and is also resistant to the golden nematode, a destructive potato pest in the major potato-growing area of Long Island.

In seven years of field trials, Hudson has produced an average of 616 bushels per acre as against the 450-bushels-per-acre yield of Katahdin, a leading variety in the Northeast. Hudson has more dry matter content than Katahdin, is less apt to darken after cooking, is more mealy, and the tubers tend to be larger.

Initial seed buildup is now underway, and Hudson is expected to be available for 1974 planting.

Winner—Only one new vegetable variety won an All-America Award for 1973. A hybrid zucchini squash called Aristocrat won a bronze medal for its extra earliness, prolific yields, and the quality of its fruits, which don't fatten up and spoil as fast as other zucchini varieties. First fruits can be had within 48 days of sowing seeds directly into the garden.

Bumper year for new vegetable varieties was 1972, when award winners were two red cabbages, Ruby Ball and Red Head, and a cucumber called Victory.

In 1971, an exceptional new corn called Early Xtra Sweet was an All-America Selection.

Potato Yearbook — The 1972 edition of the American Potato Yearbook, with a variety of information for all those associated with the potato industry, is off the press. Of special interest is the article "New Potato Varieties Sought," based on the project of the Maine Potato Breeding Program.

Other important features include how to secure instant potato marketing news, the 1972 acreage and marketing guides, statistical data, and information on how to obtain material covering every phase of the potato industry. Also included is the Onion Supplement, brought up to date.

Copies of this 25th edition may be secured from: American Potato Yearbook, P. O. Box 279, Scotch Plains, New Jersey 07076. Price is $3.00 ($3.50 outside U.S.A.) A complete volume, 1951 through 1971, is available at $35.50.

New Lettuce — A new variety of head lettuce with excellent eating quality and a wide range of adaptability to various soil types is "Fairton" . . . developed for commercial production and for home gardens by Prof. Peter Minotti in the vegetable crops department at the New York State College of Agriculture and Life Sciences, Cornell.

Compared to leading varieties grown in the East, Fairton has a wider frame with more wrapper leaves and a more upright growth habit . . . two factors considered important during wet harvest periods. The new variety has good head solidarity and uniform maturity, and is strongly resistant to tip burn, brown rib, and premature stalk elongation.

Fairton is recommended for trial in all areas where head lettuce is presently grown. Mosaic-free foundation seed was produced in Australia during 1971-1972, and those interested in obtaining the seed may request it from: Department of Vegetable Crops, Cornell University, Ithaca, New York 14850.

Field and Garden — Some new Harris varieties for 1973:

Presto Hybrid Tomato - A prolific yielder of round, bright red, mild-tasting, salad-size tomatoes about 1½ to 2 inches in diameter on vines about 2 feet tall. Presto is extremely early to ripen and produces abundantly over a long season. Great in patio pots or in the garden.

Howden's Field Pumpkin — A real thumper of a Hallowe'en pumpkin (many weigh 50 pounds or more) in the Connecticut Field class but much more uniform in shape, brighter and richer in color, and with less tendency to produce flat-sided fruit.

Green Arrow Garden Peas — Small, sweet and delicious. Slim 4 to 4½-inch pods are borne in pairs near the top of 24-to 28-inch vines, making them easy to pick. Yields are remarkably heavy and ready in early midseason. An ideal variety for the home garden.

The Great Pumpkin (Howden's Field) and friend.





"When it comes to my cattle, Staley has the products"

Bernard Groft, Dairyman
New Oxford, Pa.

SWEETLIX® Molasses-Salt Blocks*, manufactured under a Staley patented process, are a proven feeding method helping to assure controlled daily consumption when self-fed as directed.



MOLASSES MINERALS SALT VITAMINS

Self-Fed ENERGY and MINERALS • Cattle can Balance Their NEEDS

HIGH ENERGY PROTEIN

NATURAL PROTEIN—no urea • High in Total Digestible Nutrients (TDN) • Highly Digestible ENERGY Sources • Vitamins-Salt • To be fed with your ROUGHAGE program





MOLASSES MAGNESIUM SALT

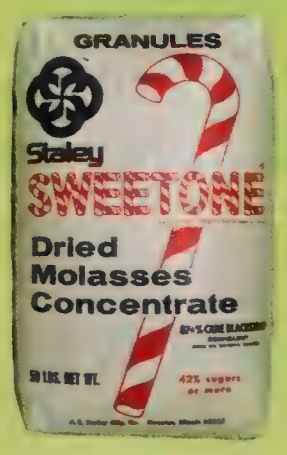
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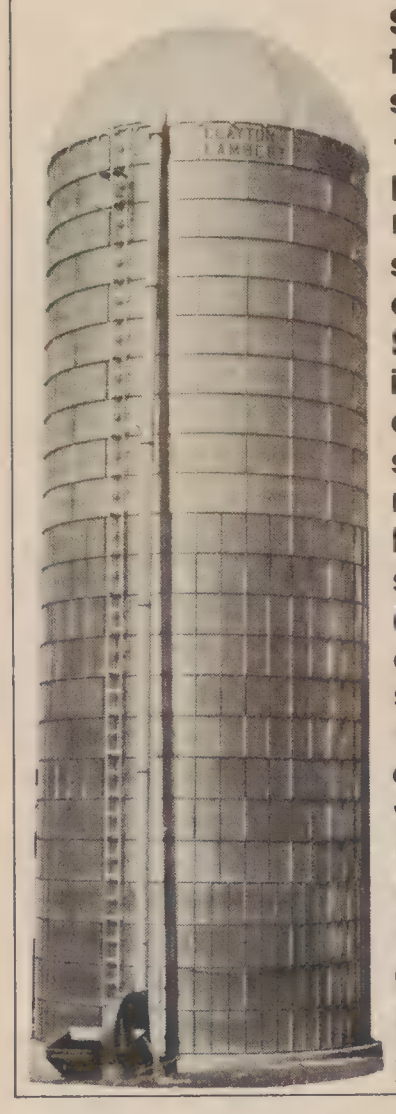
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Food For The Spirit



by Robert L. Clingan

Jesus said, "Blessed are the peacemakers, for they shall be called sons of God. Blessed are those who are persecuted for righteousness sake for theirs is the kingdom of God."

Peacemaking is a role in this world from which no person who tries to be Christian can escape. The Bible says, "God was in Christ, reconciling the world to Himself." In the very next verse it says that a person who is to be Christian is called to be an "ambassador of reconciliation."

The Christian has the role of reconciling the divisions into which people polarize themselves and each other. The Christian must use his influence to mediate the conflicts between rich and poor, black and white, even the communist and the non-communist world. He must, if he would be Christian, use his influence to bring the war in Indo-China to an end.

This is a hazardous position. Few groups want to end their conflict until they can negotiate or reconcile from a position of **strength.** Peacemakers are in short supply, and their efforts are often suspect. They may even be accused of being treasonable to their own kind, to their own cause. Sometimes, in our society they are even suspected of being communists in disguise.

Jesus assures His peacemakers that no matter how highly or poorly regarded they are by their contemporaries, in the end they will be known as sons of God. That alone, to be known as sons of God, makes it all worthwhile . . . whether peace comes to the world or not.

Jesus further assures all who are persecuted for His sake. If the trouble they get into is from doing His work from sincere motives and high ideals, they will have their reward. If they do not receive it in this world, they will in the next.

Those so persecuted can be proud to be numbered among the true prophets who were always persecuted by their contemporaries . . . and honored by subsequent generations.

Have courage, expend yourself for peace, for justice, for right. If you are persecuted for His sake, you will be called one of the sons of God, and numbered with the true prophets of all time.



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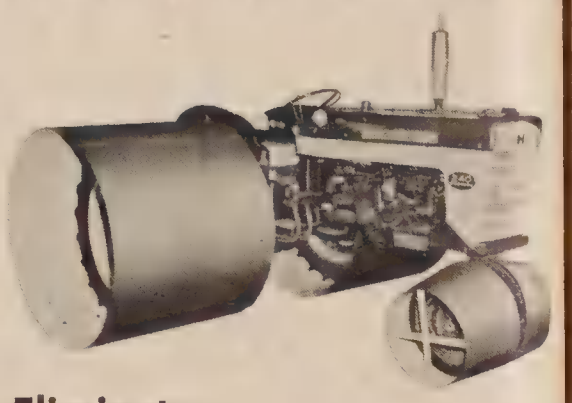
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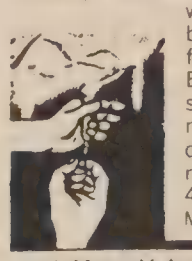
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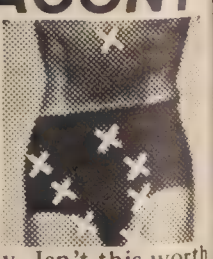
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Nutsedge . . . . .

(Continued from page 31)

waiting to be brought near the soil surface, when they'll start growing new plants. So it takes three to five years to eliminate a nutsedge problem from a field.

Cultivation can greatly aid your nutsedge control program by knocking back any plants that come through the herbicide, weakening them so that they don't set new "nuts" or tubers. One cultivation should do the job, after corn is up, and say, six inches to two feet high.

Annually

Aatrex or atrazine can control nutsedge on an annual basis, if it's put on just right. This means a split application, with two pounds applied preemergence, before the crop is up, followed by two more pounds postemergence. To the latter, mix in one quart of Booster Plus per 15 gallons of spray to better its contact on nutsedge leaves and to improve its kill. Atrazine doesn't kill crabgrass or panicum, so these grasses may come through on you.

This treatment can work well, but not if it's raining when you want to get into the field. For myself, I'd prefer to use this as an emergency method, to fall back on if weather blocks the pre-plant incorporation of Sutan, or if my Sutan doesn't work.

Nutsedge is toughest to control in "no-plow" corn since there's no chance to incorporate Sutan before planting. Here you'll need to rely on the atrazine and Booster Plus application to follow up your original mix applied at planting time.

So far, we've not been satisfied with nutsedge control in no-plow situations, no matter how it's done. If you have heavy nutsedge stands, I'd suggest using the plow and Sutan.

In forages, Eptam gets the nod, since it's more effective than Sutan.

Discing

Eptam, like Sutan, should be applied to a dry soil surface before planting and incorporated immediately into the soil by crop-discing. Eptam at three to four pounds per acre (three pounds on sandy soils, four pounds on clay or silt loams) will give excellent nutsedge control and also knock off annual grass weeds and some broadleaf pests. It's weak on common broadleaf pests like wild mustard, wild radish and ragweed.

With Eptam applied at planting time to control nutsedge, you can come back later, after the crop and weeds are two or three inches tall, with 2,4D-B or DNEP at one pound per acre to get wider spectrum of broadleaved weeds.

Eptam is almost too good a grass killer in forages, since it kills seedlings of timothy, brome or other grasses we might like to mix with our alfalfa or trefoil. So if you want these in your mixture, you may prefer to use only 2,4-DB or DNBP. But if you don't use Eptam, don't sow your crop on a field heavy with nutsedge, for these won't faze it a bit.

Don't overdo with Eptam on alfalfa or trefoil. Get your rate too high and you can get damage, a typical cupping of the leaves and stunted plants. This can happen at five or six pounds per acre, sometimes even at four pounds, if weather turns dry. Such plants normally recover and establish good stands, but seeding year yields can be reduced.

Eptam's the best nutsedge killer we have, and it's too bad we can't use it on corn. But corn is a grass too, and Eptam can set it back badly. Sutan, though slightly less effective on nutsedge, doesn't harm corn, so it's the chemical we have to use.

But new developments keep popping up and there's now a chemical that can be applied to corn to make the resulting plants resistant to Eptam. This would free us to use Eptam in corn and give us better nutsedge control. Chemically inducing specific herbicide resistance in a crop plant is a novel idea, and while it needs a bit more research, it does look promising. This new chemical is not yet on the market, and must still pass safety and residue clearances. We believe you'll be hearing lots more about this in future years.

Chemicals are expensive, but so is nutsedge, if it's knocking your crop yields off 10, 20, or even 50 percent. They'll pay and pay well if this pest is hurting your crop.

You can save some money by wise use of cultural equipment. Cultivation can set back existing nutsedge in corn and prevent it from setting new nuts. But cultivation does best when it follows Sutan or Eptam, otherwise you may drag nuts around the field and start new "hot spots."

An eagle eye can pay off in spotting the first clumps of nutsedge in a field. Normally this weed will appear just as one or more small patches, several feet or yards across, where one plant has spread and developed a small community. If you spot these patches early, it can pay to hit 'em with a soil sterilant like Hyvar X or Tandex, at 10 to 20 pounds per acre. These should be put on early, as growth begins. Crops won't grow in these spots for several years, but you may knock the nutsedge out before it spreads across your fields, cuts back your overall crop yield, and gives you a long-lasting boost in your chemical bill.

Nutsedge is a pest but it can be profitably controlled. If it's in your fields, it can pay to knock it out. If it's not, it will pay you to keep it out.



Welcome

Steve and Barbara Parks live in a house with walls two feet thick. "It's been here forever," says Barbara.

So has their old-fashioned brand of hospitality. They even welcome stray cats. "People think a dairy farm is a good place to drop off kittens," says Barbara. "In the spring we have about 30 —we feed them four quarts of milk a day."

The family farm on which they live and work has now grown to a corporation with a modern pasteurizing plant and a four-truck delivery route.

"You really have to take good care of equipment to make a farm pay today," says Steve. "As far back as I can remember, Dad always used Champions. I do too. In my Ford pickup—in all the farm engines. Even the Ski-Doo."

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Better plugs for everyone.

Modern haystack

by Chester Peterson, Jr.

NO animal this side of an elephant has more capacity for large amounts of good roughage than a dairy cow.

There's more to dairying, of course, than simply socking a lot of quality forage to a string of cows. But a supply of good roughage is a darn good start, reports Jack Wysocki, who (with his father Henry) farms 400 acres and milks 100 cows near Hoosick Falls, New York.

They'd initially baled all their hay, then erected two 20×60 Harvestores for haylage. But the storage wasn't enough to carry them through the winter, so they still had to bale hay. Wysocki believes cows still need some long roughage to keep rumens activated.

Then this past summer, a real wet one, they made another switch. The Wysockis began putting up stacks with a Hesston StakHand 10. This unit picked up hay from their windrows and compressed it into squarish, ton-size stacks.

Later, Wysocki lifted the stacks with a homemade forklift and moved them to scattered stackyards. Then, during the winter, he's using the same device to haul them to their cows.

Although they'll have a better idea of stacking, including feeding, after a complete winter of using the long hay as roughage, here's how the younger Wysocki views this modernized version of an ancient haying method:

Labor needs – Henry does the windrowing and Jack the stacking, although in total time it's still the equivalent of a one-man job. While still baling, the Wysockis had to hire two or three part-time men at intervals during the summer.



Jack Wysocki looks at hay in stacks.

"At $1.65 an hour, that was costing us $305 to $375 a year," Wysocki reports. "That's one cost we've eliminated."

Other costs – There's another saving of possibly $250 to $300 a year in twine purchases. Overall, Wysocki estimates their cost to produce a ton of hay has been cut in half.

Time saved – There are two ways stacking saves working hours, according to Wysocki. In the first place, he can begin scooping the hay out of the windrows at 20 to 25-percent moisture, a little "wetter" than if he were baling.

"This is maybe only an hour or two earlier than normal," Wysocki says, "although this means I usually can start stacking on a good day at 11 a.m. instead of waiting until noon or 1 p.m. to bale as I used to."

He's stacked up to 30 stacks in a day, too, the equivalent of approximately 1,200 bales of hay.

"That's a lot of hay," he adds. "Three men would really have to hop to it to get that much baled hay off the field in a day."

Outside Storage

Storage – Although the stacks are left outside, in contrast to bales which must be stored inside under a roof, Wysocki doesn't figure in any saving here because they already had the storage area. However, he admits this would be a factor if new hay storage had to be built.

He's noticed an inch or so of spoilage on the tops of their stacks, and possibly a little less at the bottoms. He hasn't seen any spoilage on the sides so far.

"The stacks we've checked or fed looked as good on the inside when we opened them up as the day they were put up," Wysocki observes. "We do have to be careful in locating level ground to dump them on, however. That's not always so easy to find in this country."

Palatability – The first stacked hay they fed resulted in a strong

(Continued on page 39)





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Milk promotion

A New York Dairy Promotion Order became effective on May 1, 1972 with an assessment rate of five cents per hundredweight on milk produced in New York State. During the seven months (May-November, inclusive) there were $2,247,000 collected from New York dairymen, plus $680,000 more to support milk promotion programs operated by Niagara Frontier Milk for Health in the Buffalo-Niagara Falls area; Rochester Health Foundation; Milk Promotion Services, Inc., serving the Boston (Massachusetts) Regional Marketing Area; Connecticut Milk for Health; and the Dairy Institute of the Erie (Pennsylvania) area.

Four contracts have been negotiated with American Dairy Association and Dairy Council of New York:

— expanded nutrition education by local Dairy Council units ($455,000).

— milk advertising and promotion, primarily in the New York-New Jersey marketing area ($1,028,000).

— two contracts for support of United Dairy Industry Association efforts on promotional materials, network TV ads, test-market advertising, national magazine ads, and research ($553,000).

A ten-member Advisory Board composed of dairymen advises and assists Commissioner Frank Walkley in administration of the order. Administrative expenses for June-December, 1972 were just under $9,000 . . . including actual expenses of the unsalaried Advisory Board members.



Twenty million specially imprinted milk cartons bearing the message, "Milk is your child's key to nutrition. Books are your child's key to learning," have been distributed by Safeway stores across the country, and millions more are moving into American homes through support of dairy companies countrywide. The National Dairy Council is among cooperators in this National Reading Center project to fight illiteracy by urging parents to help their children learn to read. Educators estimate that eight million school children need special help in learning to read.

Haystack . . . . .

(Continued from page 38)

preference by a group of heifers for loose hay over baled hay, Wysocki remembers.

Given an opportunity to choose between flakes of baled hay or loose hay, the heifers left the bales to munch on the hay from a stack.

"Why?" asks Wysocki. "Probably the leaves stay on better than with baled hay. I've looked at the ground after the stacker's gone over it, and there's nothing left in the windrows, no leaves at all.

"But with a baler, many leaves either get cut or knocked off. Being slightly drier, there's more tendency for leaves to fall off, too," he says.

Wysocki also notes that hay put up in bale form always has many sharp ends due to all the knife cuts it receives. This apparently can cause cutting in cows' mouths, a reason they'd prefer to eat the more natural loose hay from stacks.

Summing Up

Other interested farmers were surprised at two things when closely inspecting some of the Wysocki stacks this last summer, he recalls. They expected to see strings holding the stacks together.

And, even when visiting on wet days, they learned the stacks shed water to keep the insides dry.

"We justified this changeover on the basis of saving on labor . . . labor that's hard to get anymore . . . and putting up better hay than before," Wysocki says. "So far, this stacking has done what we hoped."





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GARDEN EXPERIENCE

My experience with gardening (42 years) . . . using rabbit manure over 35 of them, plus supplemental commercial fertilizers, convinces me of the value of the organic concept now being so widely propagandized. I am also convinced that it is not so much the **source** of the basic elements which animal refuse contains as it is the maintenance of the populations of living organisms in the soil.

This is done when animal refuse is returned to the soil in adequate amounts, but for optimum cropping some commercial fertilizer is also necessary.

Composting, cover crops and the like will only partially take the place of the manure in maintaining and supporting the living organisms of the soil without better ways and means as yet not discovered by the organic farmers. — *Paul Sawin, Ellsworth, Maine.*

CARS VS. GUNS

You are correct . . . the most lethal hunk of metal we have today is not the firearm, but the motor vehicle.

In all the wars we have ever fought, there were not as many casualties as we have had with the motor vehicle. If firearms caused as many deaths as cars, the anti-gun crowd would scream their heads off. Yet almost anyone can get a license to drive, whether he can handle a car or not.

In 1956, a drunken 27-year-old woman driver crashed into me while I was taking things out of my properly-parked car. She hit at about 60 miles per hour, and knocked my car down the road 54 feet, shortening the body and chassis by three feet. I landed 30-some feet away.

I had 15 compound fractures in my legs, and was six-and-a-half months in the hospital, seven more months home in bed with casts up to my hips, then another month with bone grafts in my right leg. I almost lost my legs due to bone infection. In fact, the doctors wanted to amputate my legs the night of the accident, but my wife wouldn't let them, and they didn't argue because they thought I was going to die anyway.

After I was able to get about with the aid of a walker, there was a court trial. I won the judgment, but what good was it? The woman who hit me had no insurance, in fact did not even own the car she drove and wrecked that night, and she quit her job so she wouldn't have to pay me. I took a shellacking for $65,000 . . that's counting my medical and hospital bills, antibiotics, and my earning power.

I am still suffering from the effects of that accident. The woman who hit me is walking the streets scot-free. The only club I have over her head is that she will never legally drive; according to state law, she must pay the judgment before she can get her driver's license back.

I'm a skilled gunsmith and mighty careful with the handling of firearms. But if I were to hurt anyone with a firearm . . . even ever so slightly and purely accidentally . . . the way things are against firearms, the judge would throw the book at me, dust and all, and I'd be sitting in jail.

Take it from one who worked 42 years among the law-enforcement agencies in the metropolitan section of New Jersey, strict gun control laws will not control crime. They will only disarm the honest citizen and leave him a sitting duck for the crook. — *Joseph Bleha, Grantham, New Hampshire.*

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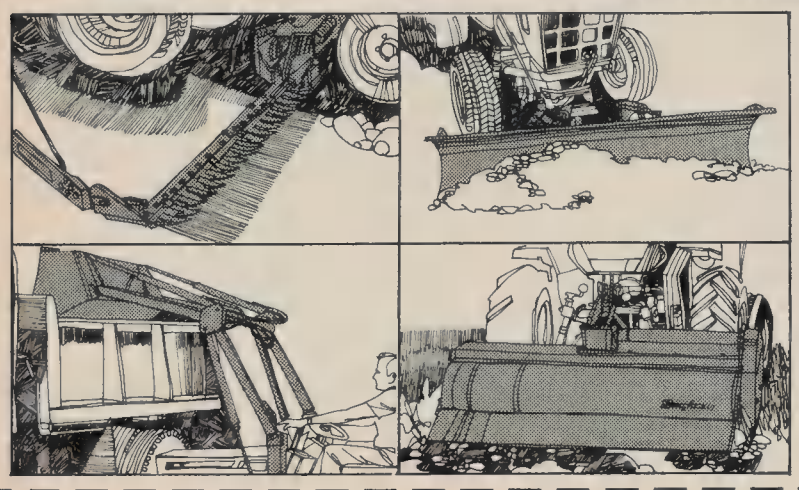
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FT-27

A HUNDRED FEET

I read your editorial about the State of New York claiming rights to trout streams.

Down here, the ecology groups are pressing the towns to adopt wetland ordinances with 100 feet on each side from center of stream. I'm told by opposing attorneys that state law is 15 feet and towns cannot pass a law of their own; they plan to try to amend the present law which they term "too weak." It is necessary to alert our friends in the legislature at this session.

Many thanks for printing editorial which may eventually involve a ruling of immense importance to farmers and landowners of America. — *Frank Moffett, Katonah, New York.*

FLOOD PREVENTION

Do we need a flood prevention plan sponsored by the State of New York?

Some years ago, Albany put out a slick brochure which called for a dozen or so water storage and recreation dams in the 2,000-acre size each, all scattered across the state. This idea was fought and defeated by the landowners in each locality it was tried. After this pathetic fiasco, the state planners went back to their usual routine of road building into which has been poured untold millions without even pennies for flood control.

The pat answer on this matter today, from one state senator, is that it is a **federal** problem. Well, part of this answer is true . . . but only for funding and technical services. State **watershed associations** are few in number in comparison to what should

be done to save state natural resources and the burden of land purchases for dams would seem to be a state matter.

Peanuts

Since Congress passed Public Law #566, back in the fifties, it is doubtful that New York State has gotten peanuts from this fund . . . while other states have reaped all the advantages. Why is this so? Mostly because the water-resource state plans called for speed boats and state parks. We need a little something more than a zoom-over by Albany Plane No. 1 while we sit on the rooftops of our flooded homes!

Since hurricane Hazel in New England, and Agnes in New York, the super-flood poses a new element of danger . . . the swiftness with which the valleys are caught with speeding floodwaters. While it is true that the hurricane hunter planes may successfully seed these storms and dump them at sea, it is not above reason that once in fifty years we will have the 12-inch-rainfall super-flood, with the 6-inch-rainfall levels on the average of five to eight years apart.

Too Low

Some comparatively new state highway bridges proved built too low to pass the Agnes flood off the tributaries. In one locality, thousands of dollars of damage resulted in a previously unflooded residential area due to this cause.

Evidence now points to headwater tributary dams in the 100-acre range as the best answer to the super-flood. Enough of these on any watershed would hold the downstream rivers to the level where dikes would contain floodwaters through the basin villages or cities.

A flood-control alternative to the foregoing would be the valley dams. But due to the spread of urbanization, the cost of these may run about one-half just for relocating homes, roads and utilities. Also, this type of dam is not 100-percent safe, though it has proved to be so when anchored in the rock canyons of the West. Recently, Congress passed a bill authorizing the inspection of all such structures. — *Bernie Hayes, Wellsville, New York.*

PARSLEY PARTISAN

Your editorial on parsley prompts me to come to the defense of this fine herb. If you will delve into a treatise on nutrition, you will find it to be an excellent source of vitamins A and C. Aside from being good for you, it is just plain good. Very few days go by that I do not reach for it, either dry or fresh. It is not just a garnish, it is food. Here are some of its uses:

1. Used with fresh tomatoes, cucumbers, and chopped onions, with a slightly sweetened vinegar and oil dressing, it makes an irresistible salad.

2. Teamed with green onions, potatoes, butter and cream, it makes a soup that once tasted will never be forgotten.

3. In chicken stuffing, it gives a flavor that satisfies.

4. Spaghetti sauces need it.

5. Soups and stews aren't complete without it.

6. Did you ever eat parsley potatoes?

7. Pull some fresh carrots, remove skins, slice a medium onion, boil until carrots are just firm done, drain, add butter and parsley. And enjoy.

8. And, of course, it adds eye appeal, both as a garnish for food, and as trimmings along the garden path.

So, do not relegate parsley to the side of your plate. Eat it. You will know why it doesn't need a sales pitch. It does its own advertising, in better health and better tasting food. — *Mrs. Raymond Williams, Seelyville, Pennsylvania.*



Bell-Mount — This old bell is painted and post-mounted in the farmyard. The base is made of heavy steel plate, reinforced with gussets at the mounting to a pipe post, and with flat bars of steel along two edges. These were drilled and the hangers bolted in place. The post was set in concrete.

Last chance

Prentice-Hall, publishers of the late Ed Eastman's "Journey to Day Before Yesterday," advised us recently that the current fourteenth printing would be the last one.

To make sure that all AMERICAN AGRICULTURIST readers who knew Ed in person or through his writings while editor for 39 years can get a copy, we purchased all the remaining supply and had them shipped to our new offices in the DeWitt Building in Ithaca.

Copies of this well-illustrated, hard-bound book are available at $7.50 each, including postage, handling and tax. Send check and mailing instructions to AMERICAN AGRICULTURIST, Box 370-Book, Ithaca, New York 14850. Please print address.



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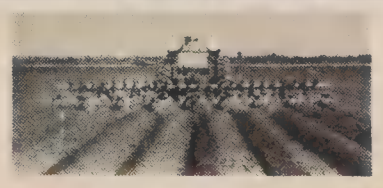
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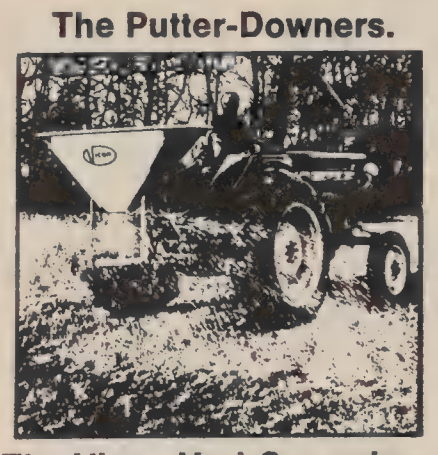
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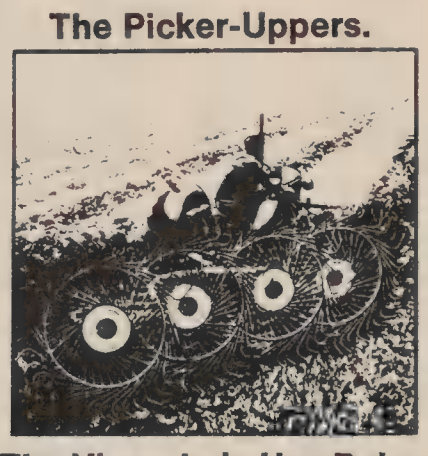
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A roadside market built in 1971 at Fishkill Farms is a substantial sales outlet.

Orchard profile

LOCATED in the midst of the of the Hudson Valley fruit-growing region, the Fishkill Farms (near Fishkill, New York) produced an estimated 90,000 bushels of apples on some 325 acres in 1972. Although this was a lower production figure than achieved the year before, orchard manager Raymond Morris considers it more than satisfactory in view of the heavy rains and little sun early in the season, and the fact that 50 acres were taken out of production for replanting.

Raymond, who has grown up in the orchard business . . . his father was Fishkill Farms' manager before him . . . makes a practice of replacing some orchard acreage each year, replacing older stock with new, higher-producing plantings.

Tree Plantings

Of its producing acreage, Fishkill Farms has 175 acres of 5-year-old trees and up, 100 acres of young trees (1 to 5 years old), and 150 acres of other crops (nectarines, pears, corn and vegetables). Among its established apple varieties are McIntosh, Red and Golden Delicious, Cortland, and Rome. Newer planted varieties include Polar Red, Tydeman, Spartan, and Double Red McIntosh.

Most of the orchard's apple trees are grown on MM 106 rootstock (semi-dwarf); 10 acres are grown on M26 (a full dwarf type). These smaller trees allow more plantings per acre and hence greater fruit production per acre . . . with a corresponding decrease in maintenance, picking, and other labor costs on a per-bushel basis.

Raymond is planting all new trees in rows running north and south. He says that the new stock designed for high density requires the maximum of sun which it receives when planted in this direction. Between the rows of young trees, he plants buckwheat to help slow down fall growth which makes trees susceptible to winter injury.

Pest Control

The unusually wet weather created serious disease threats in the region in 1972 . . . apple scab, cedar rust, quince rust, and powdery mildew. Large aphid and mite populations were also detected in some areas.

The spray schedule included 15 Polyram treatments running from April 22 to August 10 . . . many of them in combination with insecticides to control mites, aphids, tarnished plant bugs, plum curculio, codling moths, and apple maggots. Among the other chemicals used were Ethion and oil, Guthion, Morocide, Imidan and Phosphamidon. The last treatment was an application of Niacide/Guthion on August 23.

Thinning

Chemical thinning (with napthalenacetic acid) is also applied two weeks after bloom on most varieties to take off the weaker fruit.

Fungicide treatments were applied according to label directions . . . two pounds of Polyram 80-percent wettable powder per 100 gallons of water, but at a 4-times concentrate rate. This practice reflects a trend among area growers toward concentrate (2× to 4×), rather than dilute formulations. It allows them to spray 2 to 4 times more acreage with the same amount of water, offering significant savings in time.

Growing Programs

The orchard is usually fertilized around December 1. Choice of fertilizer depends upon what the previous growing season was like, and the condition of the soil. A typical application is 12-12-12 at a rate of 3 to 10 pounds per tree, depending upon the area and the age of the tree. Young trees are fertilized around April 1 with 10-10-10 at 200 to 300 pounds per acre (applied by spinner spreader).

For mouse control, treated cracked corn is spread around trees by machine before the leaves fall, usually early in November. The orchards do not require lime regularly, although soil samples are tested each year. When lime is applied, it is spread at 4 to 5 tons per acre.

A good deal of care is given to pruning practices which influence both high fruit production and good color. Raymond aims at pruning at least two-thirds of his producing acreage each year with mechanical hedger and topper equipment. Extent and method of pruning will vary, depending upon tree age and variety. Hand pruning from the center of each tree is also performed.

Part of the success of the Fishkill Farms, which contain an over-

(Continued on next page)



Starling Trouble — California fruit growers shudder when they see starlings descend in their vineyards or orchards. They're greedy eaters, and can destroy enormous quantities of otherwise salable fruit.

Several Golden State counties, including Sonoma, have a seasonal trapping program to reduce starling numbers. The other approach is to use noise-making devices to scare birds away.

One system, manufactured by the Av-Alarm Corporation of Mountain View, California, makes a sound that disturbs starlings so they leave. It is electronically amplified, and "broadcasts" over a considerable area.

New Fungicide — Benlate (active ingredient is benomyl) has been around for several years, but it's still a relative newcomer to the list of fungicides farmers use. Snap bean growers have found it extremely effective against white mold. This is partly because it has systemic action on that crop . . . being incorporated into the plant juices so that it is everywhere in the plant to fight infection.

Fruit growers also used Benlate in 1972, but its systemic action in woody plants is extremely limited when the material is sprayed on the leaves of trees. If introduced into the tree trunk by injection . . . as it is to combat Dutch elm disease . . . then its translocation through the tree is considerable.

Benlate has proven effective, however, in preventing brown rot of stone fruits by spraying at early bloom, full bloom, and preharvest. Growers reporting good results in 1972 include Bernie Walther of Sussex County, New Jersey . . . Jim Clarke of Milton, New York . . . and Dan Zinke of Valatie, New York.

Jim Clarke in cherry orchard where benomyl fungicide saved his crop in 1972 despite wet June weather.



Grape Harvester—A mechanical grape picker which field-crushes grapes and stores them in controlled atmosphere to prevent oxidation has gone into use on the West Coast. Called a "modern day processing plant on wheels," it picks, cleans, crushes, stems, controls fermentation and oxidation of the fruit during the process. Gas pressure (carbon dioxide) is then used to push the crushed fruit into stainless steel tank trucks for immediate shipment to the winery.

Result is lower cost for growers, and improved bouquet for wine connoisseurs, according to Up-Right, Inc., manufacturer of the harvester.



The Up-Right Model SC-70 moves through a vineyard.

Orchard . . . . .

(Continued from page 42)

all 850 acres and is owned by Robert Morgenthau, can be attributed to its selling program. It markets directly to chain stores, and has operated a roadside farm market at the orchard for many years. In 1971, it built a modern farm store and warehouse which has made this operation even more efficient.

A major outlet for the orchard's crops in supplying the many roadside markets in the Hudson Valley is seen by its manager. The orchard intends to encourage more of these operators to rely on its production.



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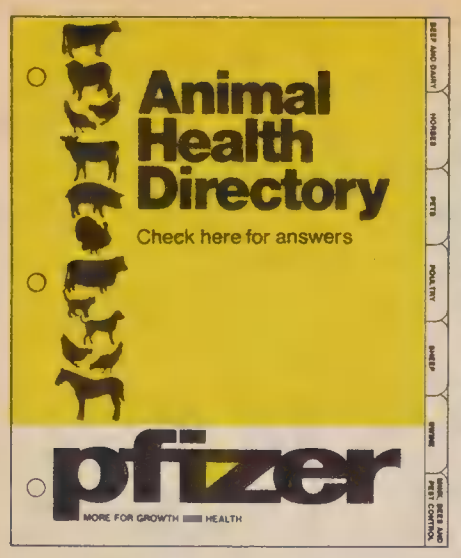


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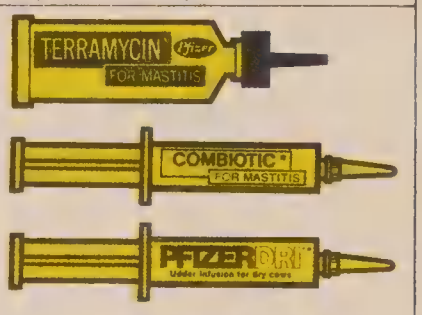
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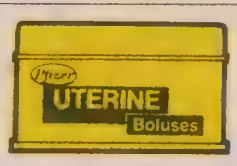
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Mar. 6-8 - Northeast Aerial Applicators Conference, Holiday Inn, Ithaca, NY

Mar. 13-14 - 4th Annual NYS Roadside Marketing Conference, Holiday Inn, Rt. 690, Syracuse, NY

Mar. 22 - Agricultural Leaders' Forum, Cornell University, Ithaca, NY

Mar. 22 - 3rd Annual Livestock Day, J.O. Keller Building, Pennsylvania State University, University Park, PA

Mar. 23-24 - School for Christmas Tree Growers, Morrison Hall, Cornell University, Ithaca, NY

Mar. 26-28 - Cornell University Agricultural Waste Management Conference and National Symposium on Food Processing Wastes, Syracuse Hotel, Syracuse, NY

Mar. 29-30 - New Hampshire Poultry Health Conference, Memorial Union Building, University of New Hampshire, Durham, NH

Mar. 29-30 - 26th National Conference on Rural Health, Statler Hilton Hotel, Dallas, TX

Mar. 31 - Pennsylvania State Holstein Show, Farm Show Building, Harrisburg, PA

Apr. 7-8 - Annual Maple Festival, Marathon, NY

Apr. 11 - 15th Annual New England Dairy Feed Conference, Hotel Lenox, Boston, MA

Apr. 28 - Connecticut Holstein-Friesian Classic, Ratcliff-Hicks Arena, Storrs, CT

Apr. 28-29 - 8th Annual Schoharie County Maple Festival, Jefferson, NY

May 3-5 - 48th New York Association of FFA Annual Convention, Sherburne-Earlville Junior-Senior High School, Sherburne, NY

May 18 - Eastern Artificial Insemination Cooperative Spring Tour, Ithaca, NY

May 20 - Buck and Kid Show, sponsored by NYS Dairy Goat Breeders Association, Fairgrounds, Altamont, NY

June 10-13 - NEPPCO Egg Quality School, Quality Inn, Towson, MD (Exit 26 of Beltimore Beltway)

June 15-17 - 26th Annual Delmarva Chicken Festival and Chicken Cooking Contest, Civic Center, Salisbury, MD

June 24-27 - Annual Meeting, International Apple Institute, Park Place Motor Inn, Traverse City, MI

July 16-17 - Eastern Regional Junior Angus Show and Judging Contest, Harrisonburg, VA

Aug. 3-4 - Northern New York Agricultural Historical Society Craft Fair at Museum on Rt. 180, Stone Mills, NY

Aug. 6-9 - AIC National Institute on Cooperative Education, New Orleans, LA

Aug. 6-10 - Annual Meeting National Livestock and Meat Board, Omaha Hilton Hotel, Omaha, NB

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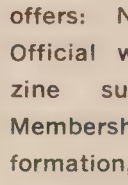


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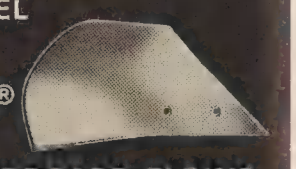
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New York State's Best Cooks!

by Home Editor Augusta Chapman

"Wonderland of Food" was the theme for the Culinary Arts Competition at last year's New York State Fair. Traditional recipes, specialty recipes, health and low-calorie foods were featured. Every day a "Best Entry" for each section was chosen, and these entries then competed for "Best of the Fair" designation. Finally, Grand Prize winners were selected from this latter group. Following are names of the grand prize winners and their recipes.

First Grand Prize Winner was **Mrs. Chester Sibble, Gibbs Road, Manlius, New York.** For her Brown Bread recipe entered in the Senior Citizen Competition, Mrs. Sibble received a Trash Compactor, donated by Sears Roebuck & Company. Here is Mrs. Sibble's recipe.

BROWN BREAD

1½ cups sifted flour
1½ teaspoons baking soda
1½ teaspoons cinnamon
½ teaspoon salt
2 eggs
1 cup salad oil
¾ cup sugar
1 teaspoon vanilla
1½ cups grated carrots
1½ cups chopped pecans

Heat oven to 350°. Grease 9×5×3-inch loaf pan.

Sift flour, baking soda, cinnamon and salt into a large mixing bowl. Set aside. Put eggs, oil, sugar and vanilla in blender container, cover and process at Mix until smooth. Stop blender, add carrot pieces, cover and process 1 cycle at Grind. Add nuts, cover and process 1 cycle at Grind.

Pour over dry ingredients and mix only until dry ingredients are moistened. Pour into prepared pan and bake 1 hour or until tester comes out clean. Cool 5 minutes in pan, then turn out on rack and cool.

If you wish, top with a lemon glaze made by putting ½ cup confectioners' sugar, ½ teaspoon lemon juice and 1 tablespoon milk in mini jar of blender and processing at Blend until sugar is liquefied. Spread over bread.

Miss Jackie Card, 120 Washburn Drive, East Syracuse, New York, was Second Grand Prize Winner. She received a Steuben Bowl from R. T. French Company for her family-size Dark Chocolate Birthday Cake, entered in the "Fantasyland" competition for those 18 years old and younger.

DARK CHOCOLATE CAKE

1 cup shortening
2 cups sugar
4 eggs
1 cup buttermilk
2½ cups sifted cake flour
¼ teaspoon salt
3 teaspoons baking soda
¾ cup cocoa
⅔ cup boiling water
1 teaspoon vanilla

Blend very thoroughly the shortening, sugar and eggs. Combine flour, salt and soda and add alternately with buttermilk to above mixture. Add cocoa to boiling water and stir until smooth. Add to batter and mix well. Stir in vanilla.

Pour into 8-inch layer pans and bake at 350° for 35 to 40 minutes.

CHOCOLATE FROSTING

2 squares unsweetened chocolate
½ cup granulated sugar
¼ cup water
4 egg yolks
½ cup butter
1 teaspoon vanilla
2 cups sifted confectioners' sugar

Combine in saucepan the chocolate, sugar and water and cook over low heat, stirring constantly until chocolate melts and mixture is smooth and thick. Remove from heat; add egg yolks and beat thoroughly. Cool.

Cream butter and add vanilla. Blend in confectioners' sugar and cream well. Add chocolate mixture and beat until smooth. Spread on cake.

CHOCOLATE FILLING

1 cup soft sweet butter
1 cup sifted confectioners' sugar
½ cup sifted unsweetened cocoa
2 eggs

Cream butter and sugar. Add eggs and cocoa and beat thoroughly until mixture is consistency of whipped cream. Spread between cake layers.



Jackie Card's chocolate cake, decorated with Raggedy Ann and Andy, won the Second Grand Prize.

A complete set of Granny Bakeware donated by Ekco Housewares Company was awarded **Mrs. Myrta Forbes, 153 North West St., Homer, N. Y.,** for her Stollen entry. Here is the recipe which won Third Grand Prize.

STOLLEN

3 cups milk
2 packages or 2 cakes yeast
¼ cup warm water
1 teaspoon sugar
¼ teaspoon ginger
2 eggs



Left to right in picture are Mrs. Cheryl Lavin, Superintendent of the Culinary Arts Competition at New York State Fair; Mr. Harry Stecker, Manager of the Syracuse Sears Store, and Mrs. Chester Sibble. Sears awarded a Trash Compactor to Mrs. Sibble, the First Grand Prize Winner.

½ cup butter, melted
½ cup sugar
2 teaspoons salt
7½ cups flour, approximate
2 cups candied fruit
2 teaspoons grated lemon rind
2 tablespoons lemon juice.

Scald milk and cool. Combine yeast, warm water, 1 teaspoon sugar and ginger; cook until bubbly and add to milk, along with the eggs and 2 cups flour. Beat until smooth and set in a warm place for 40 minutes until batter is light and spongy.

Add melted butter, sugar, salt and remaining flour. Beat well. Turn on floured board and let rest for 10 minutes. Knead about 10 minutes until dough is smooth and not sticky.

Put into greased bowl and let rise until doubled in bulk. Punch down and let rise a second time. Turn on floured board and divide dough in four parts. Roll each into an oblong.

Combine candied fruit, lemon rind and juice; divide in four parts and spread on oblongs of dough. Fold each over and knead fruit into the dough. Again roll into oblongs, brush with butter, fold in half and seal edges.

Put in pan, brush with butter and let rise until doubled in bulk. Bake 20 to 25 minutes at 375°. Ice with plain icing made from 1 cup confectioners' sugar, 1 tablespoon milk and ¼ teaspoon vanilla.

Miss Melanie Shay, 812 Park St., Syracuse, N. Y. 13208, was declared Fourth Grand Prize Winner and received a Syroco American Eagle. Following is her winning recipe.

ORANGE MARMALADE

2 large oranges
2 large or 3 small lemons
11 cups water
8 cups sugar

Scrub oranges and lemons well; cut into quarters and remove seeds. Soak fruit for 24 hours in 11 cups water. Remove fruit and cut into very small shreds.

Return fruit to water in which it was soaked and boil for 1 hour. Add sugar and boil marmalade until the jelly stage is reached. Pour into jars and seal.

Fifth Grand Prize Winner was **Mr. Raymond Pilch, 112 Dundee Drive, Syracuse, N. Y. 13207.** Mr. Pilch's entry was Whole Wheat Bread, and Corning Glass Works gave him a set of Corelle Livingware.

WHOLE WHEAT BREAD

1 cake yeast
½ cup warm water
1¾ cups canned evaporated milk
⅓ cup sugar
⅓ cup Wesson Oil
2 eggs
6 cups whole wheat flour, approx.

In a bowl, dissolve yeast in warm water. Add milk, 1 tablespoon sugar and 1½ cups flour to mixture in bowl. Combine thoroughly and set in warm place to rise (½ hour). In another bowl, put oil, remaining sugar and eggs and mix for 5 to 7 minutes. Add to mixture in first bowl and beat well.

Sift and add more flour until mixture is too thick to beat. Then work with hands and knead for 10 to 20 minutes. Put back in bowl and let rise until double in bulk (takes about 45 minutes).

Divide dough in half and shape into two loaves. Place in greased 9×5×3-inch pans. Cover and let rise until double in size. Bake in moderate oven (350°) for 30 to 40 minutes.

A Salton Electric Egg Cooker, donated by W. S. Owen Company, was the Sixth Grand Prize and won

(Continued on page 57)



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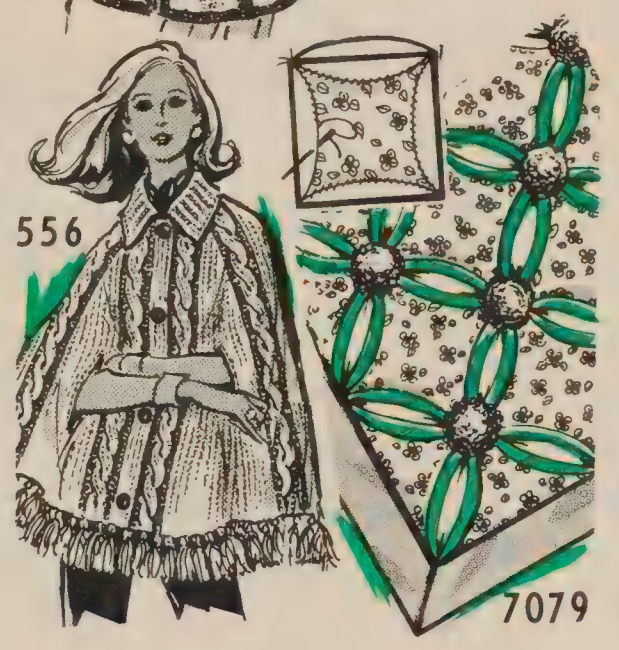






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Let's Go!

by Lois O'Connor

When end-of-winter doldrums tangle with March mud and early April downpours, a spring tonic is in order. Far more effective for flagging spirits than a dose of sulphur and molasses is a trip South to meet spring. For residents of the Northeast and Mid-Atlantic States such a jaunt is doubly satisfying, for one returns to enjoy a second spring at home.

A choice time to plan a trip, of course, is when azaleas splash the landscape with vistas of color and when festivals and community events are scheduled in many areas to celebrate this season of special beauty. There is some variation each year in the peak of blooming, not only for the azaleas but for displays of tulips and other early spring flowers – dogwood, camillias, magnolias and rhododendrons. Timing will depend also on what part of the South you plan your rendezvous with spring. My forays have been into North Carolina in late April.

Spring In Virginia

One memorable trip took me down through Virginia just in time to stay over a day near Winchester and take part in one of the excellent tours planned annually by the State Garden Club for **Historic Garden Week in Virginia**, which this year will be **April 21-28.**

During this week various private homes and gardens throughout the state are open to the public, although not all at the same time. The tours are described in a booklet, "Historic Garden Week in Virginia," for which write to **Headquarters, Historic Garden Week, Hotel Jefferson, Richmond, Va. 23219.**

Another most attractive 100-page booklet, "Carry Me Back To Old Virginia," is available from the **Virginia Department of Conservation and Economic Development, Division of Public Relations, 811 State Office Building, Richmond, Va. 23219.**

A sense of excitement begins to rise as you drive out of the snow and cold, and an unaccustomed warmth creeps into the air and comforts winter-chilled bones. There is exhilaration, too, as the countryside comes alive with misty pink sweeps of blossoming orchards, with flowering shrubs and daffodil-garlanded lawns.

There are hundreds of specific destinations to suit any taste or interest. One is Asheville, North Carolina, and its environs. Here the world-renowned Biltmore Estate is the focal point, but in the immediate vicinity are the Colburn Mineral Museum which displays minerals found in North Carolina; the Stuart Nye Silver Shop, famous for Nye's dogwood-design jewelry; the childhood home of author Thomas Wolfe; craft shops including Biltmore Industries, and the ever-present majesty of Pisgah National Forest.

Biltmore Estate was the dream-come-true of George Washington Vanderbilt, grandson of Commodore Cornelius Vanderbilt. He was a true scholar, and his intellectual and cultural pursuits extended into many fields.

As his art collections and library increased, he began to search for a location to build a home that would provide a fitting background for his treasures. His choice was the magnificent mountain setting near Asheville, and in 1880 he started acquiring land for the estate which eventually encompassed some 145,000 acres.

Richard Morris Hunt served as architect for the mansion, which was patterned after the great chateaux of France with many of Mr. Vanderbilt's own ideas included. The foundations cover five acres, and there are 250 rooms in the "house." It took five years to build and was opened with a Christmas party in 1895.

The estate now consists of some 12,000 acres, for after Mr. Vanderbilt's death in 1914, his widow deeded much of the forested area to the United States Government, and it became the nucleus of Pisgah National Forest. Vanderbilt must have had some special genius for choosing men capable of fulfilling his conception of what he wanted Biltmore to be. As landscape architect he engaged Frederick Law Olmsted, known for his landscaping of university grounds and public parks, especially Central Park in New York City. Olmsted planned on a scale to match the grandeur of the surroundings.

However it fell to Chauncy Delos Beadle to carry out many of the plans after Olmsted's death in 1903. Beadle, Canadian-born, had been at Cornell University but at 23 had left to work for Olmsted. He went to Biltmore in 1890, intending to work on the initial plantings for a month and then go back north. His plans were changed when Mr. Vanderbilt appointed him Superintendent of the Estate, a position he retained for 60 years until his death in 1950.

Famed Azalea Collection

The magnificent gardens now cover some 35 acres and include five formal gardens as well as the acres of trees and shrubs in natural settings. Mr. Beadle is probably best known for his work with azaleas. He assembled an enormous collection, and the Beadle Azalea Garden at Biltmore is said to have the largest collection of American Azaleas in the world, as well as scores of Asiatic and hybrid varieties.

Mr. Vanderbilt made another fortunate choice when he employed a young man named Gifford Pinchot to "plan and direct the renovation

(Continued on page 57)

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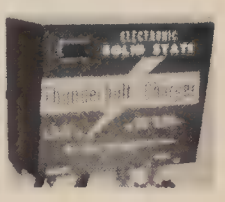
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Your home is a *Design*

by Dorothy Welty Thomas



There is a nice natural setting for the patio, and the Hoffs made an interesting semi-circular planting at the corner.

Whether you think of it that way or not, your home is a design. Good or bad, it is an organization — a group of shapes, colors and lines. Whether or not it is beautiful and pleasant to look at and live in depends on how well you plan it and how well you place your furniture, choose colors, etc.

Let's talk about what is usually the largest room in the house, the living room. With each change of season, you are likely to get the urge to rearrange, buy something new, freshen up a bit. Before you spend a cent, sit down and try to see the thing as a whole.

Try to visualize all possible arrangements of the furniture. It might help to make a chart or sort of diagram of the floor plan and cut out little pieces of paper to represent items of furniture; then move them around to try different groupings. Sometimes just a new arrangement of furniture makes you feel like you're on vacation. Your eyes get tired of seeing the same old things in the same old places.

For instance, you might try juggling the chairs and tables so you have a reading nook, a place or two for viewing TV, and if there is a desk, a writing spot. Try to visualize the traffic that goes in and out of the room and arrange the furniture for the minimum of disturbance or distraction. We knew of one room where the coffee table was in a direct line between two doors, and you had to detour every time you went through the room. An exchange of the sofa and coffee table group with a chest of drawers solved the problem immediately.

If a room is large, you might try putting the sofa in the middle and a table back of it for reading material. Then there could be a pair of chairs on each side of the fireplace facing in, or even angled toward the fire for winter nights.

Recently we have seen a relatively new piece of furniture. It is a backless sofa placed in front of a fireplace. You can sit on all four sides of it, or use it for magazines. It was made to order but probably could be made from a single Hollywood bed with shortened legs.

Another house we know that belongs to a veterinarian has a built-in sofa running around two walls of the room. They have a large family, and all of them can sit on it at one time.

If you are starting a house or room from scratch, get a lot of books and magazines from your public library and "soak up" ideas. Something good might come to the top after you let these ideas "percolate" for a while. Don't neglect the small child. See that he has something his size to sit on. You may prefer to have this in the kitchen, but somewhere in the house, make sure he has a corner.

Now something about color. There are few rules now, and all sorts of things are in fashion. For instance, you can have a lot of colors or just one or two. One of the writer's pet ideas is to begin with a multi-color object and work from that. A painting, a piece of drapery fabric, or a patterned rug might be an inspiration.

Go to your favorite paint store and get swatches of colors the same tones or slightly different (darker, lighter or softer) from the ones in the inspiration piece. Sit down and allocate these colors to various parts of the room. Don't be afraid to have some good positive color, but don't overdo it either. One good sharp color is usually enough, flanked by several softer, lighter or darker ones.

For example, we know of a room done almost entirely in light wood tones. The floor, the rug, the upholstery, the woodwork and the walls are practically all in tones of light beige or tan. Then for accent, the owner has used bright turquoise cushions, blue glass, and a lovely old painting that has the same colors of the room only darker and richer tones, and with accents of blue and red.

Another room we knew of started with the picture of a little girl, done in soft pink, greens and touches of aqua. The decorator-owner was able to find draperies with almost the identical colors. The picture is a soft, gentle thing, and the pattern of the drapes is rather small and unobtrusive. The whole room is geared to this tempo.

An Attractive Home

Pictures for this story were taken in the home of Professor and Mrs. Paul R. Hoff of Ithaca, New York. When the Hoffs bought the house, they thought the kitchen and dining alcove a bit too small for them. They like to entertain and really wanted a dining room. So they pushed out one of the walls and made a dining room with cupboards on one side.

This created a new back door and made an L shape outside the house which was a perfect place for a patio. It is charming to look at and very comfortable. The patio is enlarged by a row of planters set a little outside the lines of the house; this makes room to go in and out from the patio.

We think the Hoff home is planned very well and has a pleasing over-all design, which makes living there a joy. We hope the pictures and some of the ideas we've suggested will be a help to you in your home.

Editor's Note: Professor and Mrs. Hoff are now retired and living on the West Coast.



There is ample room to display special pieces of pottery inside and outside the cupboards. Roomy space below and a broad counter are valuable assets.



Whether the table is set up in the center of the room or the leaves dropped, there is a good view from the dining room. The corner cupboard gives more display and storage space.



This reading group of furniture also doubles for TV watching. The controls are beside the rocker for stereo listening.

Garden Talk

by George and Katy Abraham

If we had to put a finger on why many gardeners have poor luck starting seed, one big reason would be improper temperature. Fussy items such as coleus, impatiens, peppers, eggplant and others need a uniform supply of heat at germinating time — 75 degrees F. all the while.

In our own greenhouse operation, we find we get the best germination if seed flats rest on a hotbed cable set into a layer of sand. This cable is right inside the greenhouse, where you'd think the temperature would always be warm enough. With a simple thermometer to keep check on soil and air temperatures, you can make sure it's 75 to 78 degrees for the seeds to sprout. To make doubly sure the temperature is that warm, we have stapled a plastic cover over the flats.

Another reason for bad luck with seeds is the wrong starting mixture. Most greenhouse operators use one of the prepared mixes (Jiffy Mix, Pro-mix, etc.) which are loose and excellent for seed starting.

Moisture is important too. Seeds should be kept moist during the germination process. One drying-out can be fatal to seeds which have started to sprout, also to seedlings. A pane of glass or sheet of plastic over the seeds will prevent drying out, but it should be removed as soon as the seeds start to sprout.

Norfolk Island Pine

One of the most popular foliage plants today is Norfolk Island Pine, a native not to Norfolk, Virginia, but to the Norfolk Islands, 2,000 miles southwest of Hawaii. While not a pine, this evergreen looks like one and does very well indoors in pots, tubs or other containers.

The correct botanical name is Araucaria heterophylla, not Araucaria excelsa, as we used to call it. My friend, Mr. Russ Mott of the Liberty Hyde Bailey Hortorium at Cornell University, straightened us out on the correct name of this fine plant.

Here are a few culture tips for the Norfolk Island Pine. It likes a cool temperature of about 60 degrees, although warmer temperatures (up to 75 degrees) are tolerable. It's a tropical item, so don't let it get below 40 degrees. Norfolk Island Pine likes a bright window but not direct sun. Keep soil moderately moist, never allowing ball of roots to dry out. Feed every six weeks with any water-soluble plant food and at the same time, syringe the foliage to help plant's appearance. Repot the plant every two years or so.

Order Corn Seed

The catalogs are in, and it's seed ordering time. We hope you'll try some of the bi-colored corn that's being offered. The extra sweet bi-colors have white and gold kernels on the same ear, and they make quite a show.

One early variety is called **Sprite;** it has 16 rows of narrow, tight-packed kernels. **Sweet Sue** is a mid-season corn, well worth trying. Another favorite is **Butter and Sugar,** ideal for the roadside stand. The mixed white and golden kernels of all bi-color sweet corn have great eye appeal, and there's an increased demand for these new varieties.

Stay Young By Growing

If you're not a gardener and have time on your hands, why not combat boredom and take up gardening. It's also a good way to get the young busy, so they won't be thinking about drugs.

A famous doctor, Sir William Osler, once said, "No man is really happy or safe without a hobby." He didn't mention gardening, but it's one of the best hobbies there is. More than 80,000,000 people in America use gardening to combat boredom. It's also profitable — for every hour you spend in the vegetable garden, you get a return of $4.00 . . . and you eat better to boot!

Philodendron Blossoms

An AA reader has a philodendron which blossoms profusely, and this is not common. Flowers are shaped like a calla lily bloom, the inside deep red and the center part white. When conditions are just right, this plant will produce blossoms, but it's not a common thing in the home.

Rubbish Mulches Help Petunias

We saw a report from the Connecticut Agricultural Experiment Station which shows that some materials we throw away can be used to give you more flowers. By using two thicknesses of newspapers as a mulch for petunias, it was found that the plants were not only larger, but that there was also an increased number of flowers.

Plants growing in plots with paper materials produced from 50 to 80 percent more flowers than the plants growing in the unmulched gardens. Plants receiving a mulch of grass clippings, slit manila paper bags or salt hay produced three times as many flowers as plants without any mulch. It was also noted that mulches of grass clippings, newspapers and salt hay produced plants with fewer nematodes.

AA Garden Clinic

A reader writes, "The leaves of our azalea plant turned yellow and dropped. What caused this?"

Answer — Could be due to lack of light, a hot dry room, or a lack of moisture. Give azaleas a bright window, uniform supply of water, a cool night temperature (50 to 55 degrees) and a day temperature of around 70 degrees.

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Surge recently announced its TRU (Total Recycling Unit) system for manure handling. It separates, washes and squeeze-dries the undigested solids so that fibrous material can be reused as bedding and/or fed as roughage.

Odor and fly problems are greatly reduced, and field runoff problems eliminated. The experimental equipment will be field-tested in 1973 during the use of 25 systems on farms.

For details, contact Babson Bros. Co., 2100 South York Road, Oak Brook, Illinois 60521.

Massey's 1973 tractor line offers new styling, including cabs that are more comfortable and roomy than ever before. Cab tilts to the rear so there is no need to remove it for service. Just tilt and reach right in to work on the chassis or a component located below the operator's platform (see picture).

Cab is sealed and treated with sound barrier and sound absorbing material throughout. Windows and structural members are placed to achieve optimum visibility all around.

Pressurization with filtered air is standard. Air conditioning and heater are optional. Finally, for the man who has everything, a foot throttle. Each of the tractors Massey is introducing for 1973 is equipped with both foot and hand throttles.



John Deere's new two-way plow grows as the horsepower of tractors used with the plow grows. The 4200 Two-Way Plow is available in 3 or 4-bottom sizes, with shear-bolt or safety-trip standards spaced for a 16 or 18-inch cut. If a farmer buys a 3-bottom 16-inch size to match the power of his present tractor, he can add a fourth bottom if he buys a more powerful tractor later.

The 4200 Two-Way Plows are designed for tractors with Category II 3-point hitch. The plow is operable with tractor wheels set at 80-inch spacing so no wheel adjustment is necessary in changing from plowing to other work.

The International 3200A Compact Loader is a problem solver for a host of material-handling operations . . . clearing out corn cobs, cleaning out the barn, relocating feeding troughs, storing fertilizer, moving fence posts and heavy logs, or loading gravel. It can, for example, punch into a manure pile, dig out 1,500 pounds, and lift it over 9 feet high all day long. Available with a wide variety of bucket sizes and 10 other pieces of quick-attach special duty equipment.

A. O. Smith Harvestore Products, Inc. introduced a 14 × 40 storage unit in 1949 . . . and now (40,000 units later) produces a range of sizes up to the 20 × 80 feet. That's the 1440 on the left, and the 2080 at the right.

The company plans building a new plant soon to produce its livestock feeding systems.







Pack Your Suitcase

Saturday, June 23 . . . . . that's the day we board our air conditioned motorcoach to begin a wonderful two-week vacation (**June 23-July 9**) that will take us to the most interesting and beautiful places in Virginia and the Carolinas! Our tour begins in Rochester, New York, and we will pick up people at Syracuse, Utica, Albany, Tenafly, N. J., and Philadelphia, so you can join us at the point nearest your home.

Northeast Living

The first highlight of our tour will be **Luray Caverns** with its unusual and highly colored rock formations. A thrill you'll never forget is hearing an organ play in the "cathedral." Then we drive along the scenic **Skyline Drive** overlooking beautiful Shenandoah Valley to **Natural Bridge**, one of the seven natural wonders of the world.

Next comes **Abingdon,** founded in 1778 on a site where Daniel Boone once camped. We'll enjoy the many interesting shops at Abingdon, for it is a well known handicraft center. After dinner, we'll attend a performance at Barter Theatre, state theatre of Virginia.

Bristol's main street divides the town in two, half being in Virginia and half in Tennessee. From here we go to **Roan Mountain** with its 600-acre rhododendron garden. With luck, it will be in full bloom for our visit.

Asheville, North Carolina, is a famous mountain resort city, and we stay here two nights. Also, from here we explore the **Great Smoky Mountains,** including visits to Gatlinburg, the pioneer village of Cades Cove and the Oconaluftee Museum.

Leaving Asheville, we visit the George W. Vanderbilt estate (the mansion contains more than 200 rooms) and continue to **Biltmore House and Gardens.** Biltmore Dairy Farms house the nation's largest herd of purebred Jerseys.

We stay all night in Columbia, South Carolina's capital, and go on to **Charleston** with a stop at Santee to see the Wings and Wheels Museum and take a ride on the "Best Friend of Charleston," a reproduction of America's first passenger train.

We're enchanted by the charm and beauty of old Charleston, as we drive along streets lined with magnificent old town houses and see picturesque alleys where sea captains and pirates once lived. Before leaving the Charleston area, we'll visit Fort Sumter National Monument, situated on a small island in the harbor.

On our way to **Wilmington,** North Carolina, we stop at Murrell's Inlet to see Brookgreen Gardens. Next we visit **New Bern,** founded in 1710 and one of the oldest towns in the state. The most interesting thing here is the Tryon Palace Restoration, Colonial capital of North Carolina. We go on to spend the night at Nag's Head on the outer banks.

At **Norfolk** we see world-famous Gardens-by-the Sea and at **Newport News,** visit Mariners Museum. Then we'll have two days to enjoy the beauties of **Colonial Williamsburg,** strolling along the shaded streets and visiting as many of the buildings as we wish. We'll also take a trip to Jamestown, site of the first English Colony in the United States.

We'll see the State Capitol, St. John's Church and other points of interest in **Richmond** and continue to **Fredericksburg,** a delightful old city, and one we've read much about in our history books.

Our vacation ends with a visit to our Nation's Capital, with stops at Mt. Vernon and Alexandria on the way there. Time has gone by so quickly that it's hard to believe we're headed home!

Send for Itineraries

You probably noticed in our February issue that we're going to Mexico next month instead of in March. Dates for our **Colonial Mexico Holiday** are April 2-17, and there's still room for you to join our group.

Also, we can now give you definite dates for our **Holiday in Britain;** they are May 13 to June 1. Send for the illustrated tour folders today and make your reservations soon.

All American Agriculturist trips are arranged by Travel Service Bureau, our tour agents in Needham, Massachusetts. All are first class, escorted, no-worry vacations, with every detail taken care of, so you can relax and enjoy yourself. It's really the nicest way in the world to travel!

Gordon Conklin, Editor
Box 370-T
Ithaca, New York 14850

Please send me without obligation on my part, the following tour itineraries:

Virginia and the Carolinas _____ **Holiday in Britain** _____

Colonial Mexico Holiday ____

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FOR SALE: Officially, attested, advanced Register Angus bulls, also, Frozen Semen from proven sires. Write today for prices and production data. Wye Plantation, Queenstown, Maryland 21658. Telephones: 301-827-7166; 827-160.

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MEADOW VIEW CHICKS for 1973. Shaver Leghorns, Harco Sex-Links, Lawton Buffs, Cornish Cross meat birds. Also started pullets. Henry M. Fryer, Greenwich, N.Y. 12834. Phone 518/692-7104.

HI-PRODUCTION LAYERS. "Rugged as a Mule" white egg hybrids and brown egg hybrids. Also top notch White Leghorns, Buff Sex Links and R.I. Reds. For broad-breasted broilers or capons try our premium quality Cornish Super Giants. Free catalog. Noll Farms, Kleinfeltersville, Pa. 17039.

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Livestock mart

DUCKS & GEESE

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AI Guernseys	4	+22	+325	+14
AI Jerseys	6	+34	+542	+20
AI Ayrshires	7	+37	+536	+25
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30TH ANNUAL
NEW YORK HEREFORD ASSOCIATION
SELECT SPRING SALE

Saturday, March 31, 1973 - 12:30 p.m.
Livestock Pavilion
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Bulls of breeding age which grade a minimum of 14 up to 2 years. 50 Polled & Horned Registered Hereford Heifers, bred & open. Semi-Fitted - Ready for work.

Officially graded by N.Y. Dept. of Agri. & Markets - Pete Comerford and Dave Foster.

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200 head of registered and high grade Holstein fresh and close up first calf heifers and young cows. New arrivals weekly.

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Our field man will visit you at once.

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HEREFORDS

HEREFORDS

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Saturday April 28, 1973 11:00 A.M.

— 90 Lots
- 5 Spring 1972 Bulls all by "Changer"
- 28 Bred Heifers born in 1971

— 90 Lots
- 22 Heifers born Jan. to May 1972

— 90 Lots —
- 30 Top cut cows
- 5 1970 Heifers

All cattle will sell bred to any of Clove Creek's herd sires or with breeding privileges to our herd sires. Regardless of age.

1000 mile Free Delivery on total purchase of $3000.00 or 3 or more lots.

This is the time everyone is waiting for: we are selling!

1 – All heifers born in 1971 2 – All heifers born the 1st 4 mos. 1972
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"Changer" has sired more champions on the East Coast circuit than any other bull this year.

Catalogs sent on request

For details:

Clove Creek Farm

David Hall
Herdsman

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Owners

Gordon Schubert: *Manager*
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REGISTERED HAMPSHIRES—Certified meat tested Boars and Gilts. National championship bloodlines. Brooks End and Par Kay Farms, Reno H. Thomas, Beavertown, Pa. Phone 717-658-5821.

PIGS THAT EAT and grow. Grain fed, cut, inspected, tagged, certificate. Delivered subject inspection. Truckload lots 150 to 200 overnight New England states. Pigs 25 to 30 lbs. $21.00, delivered, 50 lbs. $26.00, 75 lbs. $31.00. Mostly York Hamp Duroc crosses. Call at night to order. References every state. C. Stanley Short, Sr., Inc., Kenton, Delaware 19955.

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THE NEW YORK State Yorkshire Club will have their 22nd. annual spring show and sale, March 24, 1973 at the Empire Livestock Market in Caledonia, N.Y. The show will be at 11 AM and the sale will be at 2:00 PM. Top quality bred gilts, open gilts and boars will sell. For catalog write - John Stenson, 4850 Varysburg Rd., Warsaw, N.Y. 14569.

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Classified ads

Publishing and closing dates

April Issue.....Closes March 1 **May Issue .....Closes April 1** **June Issue .....Closes May 1**

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ESP ECIALLY NICE - 334 acre dairy in excellent condition, 2 barns hold 120 head, work shop tool shed, tile silo, includes lovely 2 fam y home, on good road - $205,000. Inquire toda ! Beautiful modern dairy - 900 acres incl des 700 tillable, completely stocked and equi ped - 210 milkers, 50 bred heifers, 100 open heifers, and an excellent line of modern equi ment, 4 beautiful homes, owner financing available. 415 acre dairy - completely stocked and equipped, 2 silos, 3 barns, machin ry shed, workshop, 250 acres tillable, 5 acre pond, stream, 11 room modernized brick hom , excellent road frontage, near airport, owner financing available - $226,000. S. A. Skr nko, R.D. 2, Richfield Springs, N.Y. 134 0.

HO STEIN "MONEYMAKER" - Productive 270-acre Vermont farm comes with 60 Holstein cows, 10 heifers, 30 young stock, 4 tractors, full line machinery, 4 milkers, 500 gal. bulk tank included. 200 acres tillable, ½ mile brook frontage, artesian well, good fences. On U.S. highway, 2 miles town. 16-room 2-family home in good repair, 2½ baths, beautiful view of distant Green Mountains. New 36 x 150 barn, ties for 76 cows, silo, shop other buildings. $200,000, good terms. Free . . . big . . . 264-page Catalog! Describes and pictures hundreds of farms, ranches, town and country homes, businesses coast to coast! Specify type property and location preferred. United Farm Agency, 501-AA Fifth Ave New York, N.Y. 10017. Phone: 212/-687-2623.

A EAL TOP DAIRY Farm! 300 acres, 200 tillable of alfalfa soil, 56 cow barn, three silos, good house, nice location. Priced right! Illness forces owner to sell. Priced for a quick sale! 100 acre farm, will carry 40 cows, good barn, house. Price $58,000. We specialize in farms! Richard E. Posson, Lic. R. E. Broker, RD#3, Norwich, N.Y. 13815. 607/-334-9727.

175 ACRES - 140 acres excellent level, tillable loam soil, 50 cow barn, good 5 bedroom, 2 bath house, new tool shed and heifer barn. $165,000. Must be seen to be appreciated. 223 acres - 175 tillable, good 50 cow barn, 17 x 43 silo, excellent large house, $95,000. Petteys Agency, 5 Lincoln Avenue, So. Glens Falls, New York 12801. Phone 518/793-2212.

WE TERN NEW YORK - 375 acres, 200 tillable, with modern free stall for 150 head, very efficient unit and a nice 5 bedroom house, grossing $120,000. 442 acres-250 tillable, free stalls for 160 head. Modern farm buildings and a very nice house, grossing $75,000. 244 acre hog farm, finishing 1,000 pigs per year, good buildings and equipment, modern 6 bedroom house, grossing $60,000. 250 acres-100 tillable, tie stalls for 73 head. Calf barn, 2 silos, new tool shed, good 5 bedroom house, grossing $40,000. We specialize in farms in Western New York. For additional details write or call Lester N. Fuller, Real Estate Broker, Riceville Road, West Valley, New York 14171. Phone 716/942-6636.

100 ACRES-ALFALFA, CORN. 39 milkers, fully equipped, modern machinery. 3 bedroom house. $80,000. Apt. 315/457-3380. Graham Real Estate, Liverpool, N.Y. 13088.

SOUTHERN PA. - 10 good farms, 101 to 407 acres, dairy and beef, priced to sell. VanCleve Real Estate, New Oxford, Pa. 17350. Phone 717/624-8201, evenings.

200 PRODUCTIVE ACRE beef farm overlooking Canandaigua Lake. Automated feed bunk. Cement feed lot. Good buildings and schools. Box 369-DC, Ithaca, N.Y. 14850.

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225 TILLAGE ACRES - 55 cow barn, stocked, equipped, modern 4 bedroom house, apt. 315/-457-3380. Graham Real Estate, Liverpool, N.Y. 13088.

FARM FOR SALE, by owner. Jefferson County, New York. 250 level acres, 210 tillable. Barn ties 52 head, bulk tank, barn cleaner, mow conveyor, silo, heifer barn, 2 machinery sheds. Good 11-room house, oil heat, attached garage. Two excellent wells. 5½ miles west of Watertown, N.Y. One mile from Watertown International Airport. Phone 315/-788-8306. Price $55,000.00.

420 STANCHIONS, 210 Registered Holsteins, 960 acres, 600 tillable. Main home 12 rooms, 2 baths, oil furnace. Three 20 x 60 silos, three 14 x 50 silos w/unloaders. 50 heifers, 55 calves, 24 yearlings, 7 tractors, numerous equipment. $790,000. 29% down. Stone Home Farm, 14 rooms, 1½ baths, built-in kitchen. 68 cow barn. 2 silos, 200 acres, 2 miles frontage. $99,000. 45 Free Stalls, room for 45 more. Milk parlor. 271 acres, 160 tillable. Excellent 9-room farm home, knotty pine kitchen, fireplace $86,000. Wimple, Realtors, Sloansville, N.Y. 12160. 518/875-6355. Free lists - state wants.

620-ACRE AROOSTOOK COUNTY, Maine potato farm, on the St. John River and Route 161. Only $160.00 per acre. Price includes large barn, 2 potato houses with 13,000 barrel capacity, large tool shed, tractor garage and machine shop. Artesian well. 400 acres improved land, machine stoned, ditched and tiled where needed; balance of acreage contains some open land, mostly growing timber. Taxes very low. Labor available. Terms: $10,000 cash, $15,000 when deed is delivered; balance in ten years with legal interest. E. E. Aseltine, St. Albans, Vermont 05478. Phone 802/524-2932. Paul R. Kelly, Fort Kent, Maine - phone 207/994-5664.

FREE CATALOG. A major purpose of our mimeographed catalog is to serve as a guide to aid you in finding "your" property with a minimum of travel and expense. Its easily read descriptions include a wide variety of up-to-date New York and New England listings. A few words about special needs, price, etc., may help us to help you. Four Effs, Box 264AA, Manchester, New Hampshire 03105. (Representatives wanted.)

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FARM IN ELBA, N.Y., Genesee County. 197 acres, 153 tillable, primarily Hilton and Ontario soils with some Elmira gravel loam. Large Colonial home in excellent condition. Barns consist of 100 x 30, 50 x 24, 12 x 24. Attached garage on house; 12 x 40 silo, in excellent condition. Priced to sell quickly at $105,000. John F. Rider Real Estate 716/967-9293 or Harold Shepard, Farm Representative, 716/548-2492.

CAYUGA COUNTY Dairy Farms - 235A - 175 tillable, 3½ acre pond, 11 room house with fireplace. 70 stalls in good 60 x 100 barn with 60 x 60 unfinished extension, 3 silos. $90,000. 310 acre 160 tillable, 40 cow barn with gutter cleaner, bulk tank, silo, 7 room house, $65,000. 148A, good 49 tie barn, 2 silos, $82,500. 1100 acre, 750 tillable, 140 free stalls, parlor, 6 silos. $380,000. Many others. Call or write: Ralph Real Estate, 147 Genesee St., Auburn, N.Y. 13021, 315/253-6278.

MAINE POULTRY FARM - Located approx. 20 miles from Augusta, Maine on 235 acres of field, woods. Nearly new 400 x 40 metal poultry house. Has, at present, 42,000 broiler capacity, room for expansion. Fully automated with mostly Big Dutchman equipment. Baseboard radiation heat. Farmhouse has 4 bedrooms, in excellent repair, B.H.W. heat, excellent water supply on farm. $125,000 (firm). Call Dodge-Valley Agency, Readfield, Maine. Office hours 9:00 to 5:00. Phone 207/685-4911.

A GOOD 65 FREE STALL Operation, 9 heifer stalls, a new heifer barn. Nice 4 bedroom home with fireplace, and oil hot water heat. This is a silage operation and can be expanded. $130,000. 400 acre farm - fully equipped with 130 milkers, 40 heifers and full line of machinery. $275,000. 95 acre farm with two houses, overlooking lake. Good for horses and sheep. Take a look, just $55,000. 42 additional acres $13,000. 269 acres, 200 tillable. 36′ x 160′ barn, 72 stanchions, 2 silos, DeLaval six unit pipeline 3 years old, two houses, 30 acres of new seeding, 70 acres alfalfa. $150,000. Call Everett Emery or Bob Parlett at Alexander Real Estate, Ithaca, N.Y. 14850. Phone 607/272-5530.

106 TIE STALLS - a 350 acre farm along the Susquehanna River in N.Y.S. Has 200 tillable acres of which 100 is river bottom. Ten year old barn has 106 tie stalls with brand new barn cleaner and DeLaval pipeline milker - also, 1000 gallon bulk milk tank and silo unloader. Has two concrete silos and one wood: Ten room house completely modernized with electric heat, modern kitchen, two-car garage. Price at $190,000 bare or $300,000 stocked and equipped. Excellent terms. Call Zar Benedict at 914/343-1108 or write Barmann's Realty Sales, Inc. at R.D. #4, Middletown, N.Y. 10940.

500 ACRE FREE STALL with brand new 116 stall stable and new 12 cow parlor, full machinery, 163 Holsteins, two homes, excellent location, $220,000 complete. 400 acres, excellent 60 stanchion barn, 51 milkers, machinery, silo, cleaner, four bedroom home, $80,000 complete, $25,000 down. 340 acres, 40 milkers, new milk house, 51 stanchion barn, good home, machinery, $72,000. 355 acres, tile drained, river frontage, 48 stanchion barn, 60 head, two silos with unloaders, machinery, large home, $100,000. 247 acres, 69 stanchion barn, silo, cleaner, pipeline, mow conveyor, four bedroom home, good location, $88,800, $30,800 down. 410 acres, full machinery, 66 head, 60 stanchion barn, silo, four bedroom, $82,500. 193 acres, 41 stanchion barn, bulk tank, machine shed, brook, three bedroom home, produces 8000+ bales, $32,000. 87 acres, nine-room brick Colonial, attractive buildings, 23 stanchions, 27 heifers, some new machinery, river, $46,000. 212 acres, 37 stanchions, cleaner, silo, 40 milkers, machinery, six bedrooms, $60,000. 398 acres, excellent 44 stanchion barn, silo, cleaner, mow conveyor, 44 milkers, three bedrooms, milking equipment, $71,000. 142 acres, brook, 36 stanchions, silo, 35 milkers, machinery, four bedrooms, good area, $55,000, $20,000 down. 187 acres, 48 stanchion barn only four years old, modern, silo, machinery, 52 head including 48 registered Holsteins, two homes, one a stone Colonial, $95,000 complete. 114 excellent acres, 57 stanchions plus 12 ties, cleaner, 50 milkers, machinery, five bedrooms, cut 12,000 bales 1972, $90,000 complete, $65,000 may be assumable to right party. 150 acres, excellent location, river frontage, 60 head, four bedrooms, machinery, $100,000. 260 acres, 80 head, 57 milkers, full machinery, silo, good acreage in a prime farm belt, stocked and equipped, $99,000. Contact Brisson Real Estate, RD 2, Massena, N.Y. 13662. 315/769-9387 or 315/764-0896.

FARMS - SOUTHERN TIER - 142 acres, 100 acres tillable, capacity for 53 head, bulk tank, barn cleaner, silo unloader, large farmhouse with baseboard hot water heat. Robert S. Petzold Real Estate, 5th Avenue, Rt. 17C, Owego, N.Y. 13827. 607/687-0541.

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BUYERS WAITING! For good dairy farms within 250 miles of New York City. Bare or stocked. We can finance. Also, interested in recreation land, timber or development land. Make your offer now! Our company also buys direct. Barmann's Realty Sales, Inc., R. D. #4, Middletown, New York. Phone 914-343-1108.

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QUALIFIED BUYERS WAITING - dairy farms, others. Wimple, Realtors, Sloansville, N.Y. 12160. 518/875-6355.

WANTED TO RENT or buy on land contract, small farm with dairy barn, within commuting distance of Ithaca, N.Y. Stephen Tobin, RD#4, Ithaca, N.Y. 14850.

WANTED - Working or bare farm in New York or New England. Write to Edward J. Jennings, 125 Overlook Ave., Fairfield, Conn. 06430.

WANT FOR MYSELF, large house and farm anywhere. Also large acreage. The cheaper the better. Owners please contact Paul Boughton, Realtor, 1½ Dolson Ave., Middletown, N.Y. 10940. 914/342-1418.

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WANTED - working or bare farms. Also land. See the New York and Penna. Farm Specialists. Gordon Warner, S. W. Salisbury, Realtor, 5 Forest Hills Blvd., Binghamton, New York 13905.

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FARMS WANTED

FARMS WANTED

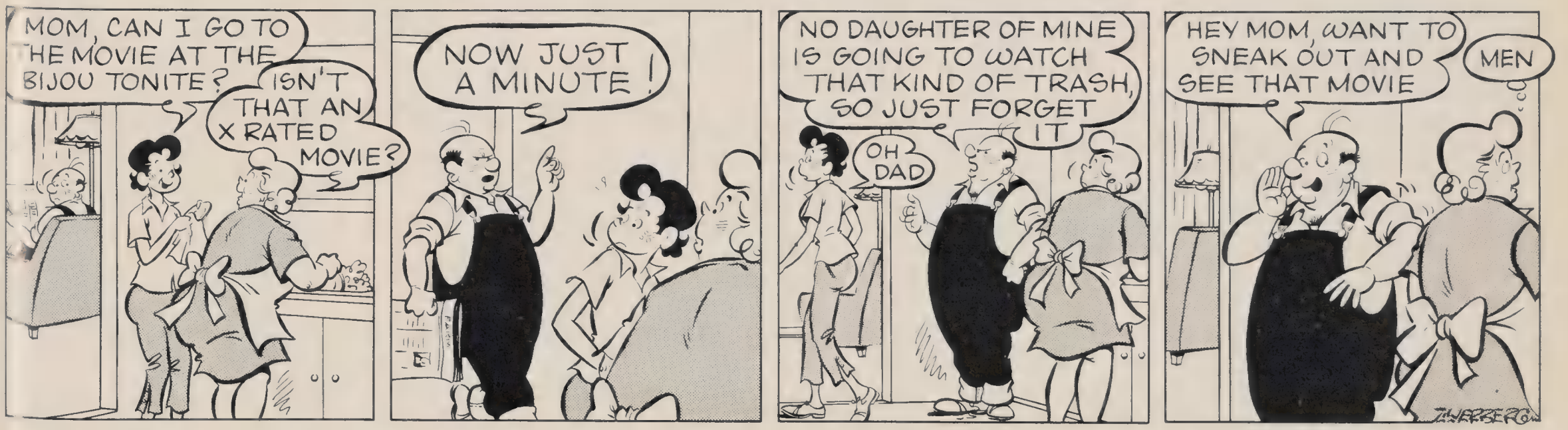
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JEEP and Government Surplus Buyers Manual (jeeps pictured) 75¢. Surplus Bargain Catalogue 60¢. Both $1.00. Surplus Bargains, Box 8A, Thomasville, Penna. 17364.

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STRAW AND ALL grades of hay delivered subject to inspection. For more information call person-to-person after 6:00 PM 518/994-1144. Christman's Exchange, Inc., RD2, Fort Plain, N.Y. 13339.

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WANTED: EXPERIENCED DEPENDABLE man to work primarily with cattle in free-stall operation. Good pay, health insurance and time off. Paid vacation. References required. Charles Baldwin, Star Route, Ouaquaga, New York 13826. Phone 607/655-2506.

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ONE OF THE OLDEST and most exclusive fishing clubs in the U.S., located in the Catskill Mountains, w/3,700 acres and 27 members, needs caretaking couple. Duties include overall supervision of buildings, grounds and stream; some simple cooking and general maintenance of facilities. Free housing provided along with a good salary. Most attractive position for a couple who wants security and enjoy beautiful surroundings and wildlife. Write in confidence to: John H. Wilkinson, Two Wall Street, New York, N.Y. 10005. Evenings: 212/624-0065.

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YOUNG LADY, animal oriented. 19 or college. Teach care of animals/gardening. July-August. Camp Marlyns, Andover, N.H. 03216.

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SALESMAN WANTED - Unlimited opportunity for ambitious man to call on stockmen and dairymen selling well known products of high quality. The company is well established and has been in business for over 20 years. Selling experience and knowledge of livestock an advantage. However, this job would be very suitable for an active retired farmer. Must have suitable transportation. Work on full time basis - there is no limit to earning power in this sales position. Fringe benefits carried include Life Insurance, Hospitalization Insurance. Worth looking into! For full particulars, write to Personnel Mgr., Box 29, Waverly, New York 14892.

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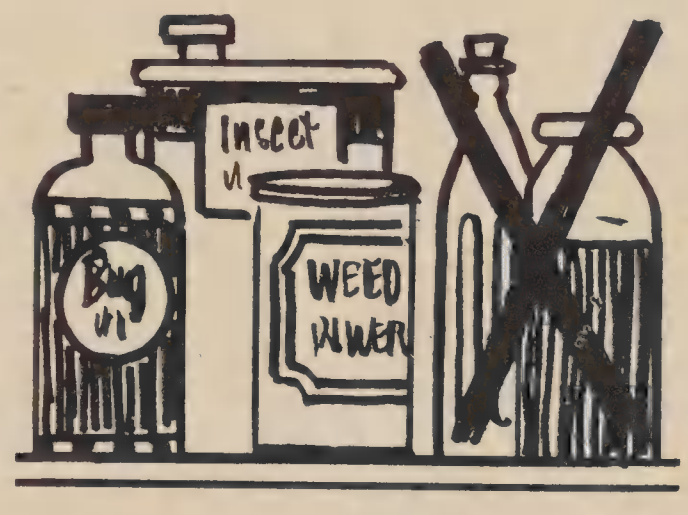
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Chain saws are a handy tool . . . practically every farmer has at least one.

Trouble-shooting a chain saw

by Harold Prost*

A CHAIN SAW is a more complex tool than a crosscut saw or quarter-inch electric drill. It has many of the elements of an automobile, outboard motor and tractor . . . including a fuel system, an ignition system, an electrical system, rotating elements approximating the propulsion system, as well as lubricating and cooling systems.

A chain saw works in a hostile environment in which the high-speed cutting chain can be blunted or damaged severely by nails, stones, earth, hardwood, wire, and so on. Complicating the environmental threats are those involving human failing, leading to chain fracture, burnout, timing failure and the like.

Problems

Here are some problems . . . and likely causes . . . that you can trigger in your chain saw. Most of these can be avoided with a little care **before** use, and a lot of care **during** use.

A. Too-fast idle

1. Idle screw set too far in.
2. Worn seals or gaskets allowing air to enter crankcase.
3. Low-speed carburetor adjusting needle set too lean.

a) Approximately one turn on low and high speed needle should start and run engine.

B. Running lean while cutting

1. High-speed adjusting needle set too lean will cause excess heat and damage engine.
2. Dirty fuel filter.
3. Hole or split in fuel lines (also cause for fast idle).
4. Fulcrum lever set too low in carburetor.
5. Hole or small split in carburetor diaphragms.
6. Vent in gas tank stopped. When engine leans out, loosen gas cap and if engine picks up, vent is stopped.
7. Dirty carburetor.

C. Engine backfires or cuts out

1. Worn spark plug.
2. Worn breaker points.
3. Bad condenser or coil.
4. Broken place in wires causing short.
5. Loose connections at wire terminals and switch.

D. Oil pump failure

1. Quad rings worn in pump.
2. Oil pick-up weight stopped.
3. Check-valve failure.
4. Hole or split in oil pick-up line, allowing air in system.
5. Bad gaskets that allow air into system.
6. Kinked oil line due to faulty installation.

E. Engine hard to start

1. Worn spark plug.
2. Worn breaker points.
3. Breaker-point gap too wide or too close.
4. Air gap set too wide between flywheel and lamination.
5. Malfunction in fuel system.
6. Low-idle-speed adjustment too slow.

F. Loss of engine power

1. Worn spark plug.
2. Breaker point gap set too close or wide.
3. Exhaust ports stopped with carbon.
4. Air filter dirty, causing too-rich running condition.
5. Worn cylinder or rings, causing low compression.
6. Air leaks around seals or gaskets.

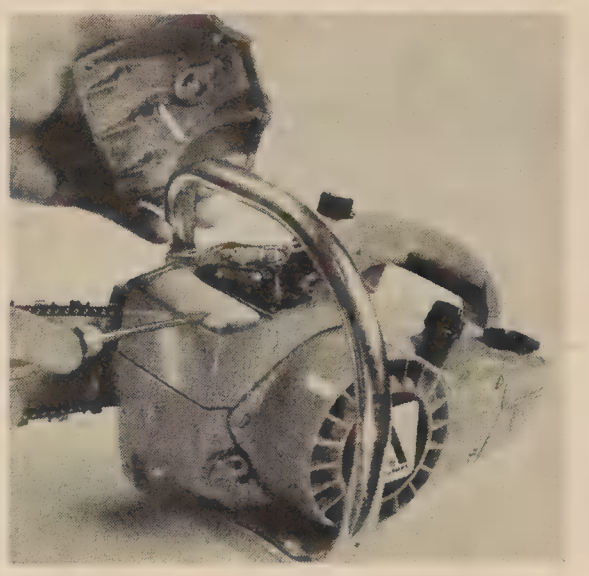
G. Starter problem

1. If starter rope fails to return, spring is broken or dirty, or it has slipped out of catch on rotor.
2. Starter fails to engage.

a) Spring broken on starter "dog."

b) Starter "dog" catch worn or rotor catch worn, causing "dog" to slip.

The air filter should be serviced after every 25 hours of operation.



*Allis-Chalmers Corp., West Allis, Wisconsin.

Cutting Problems

You'll need to keep your eyes, ears and hand-arm nerves alert to developing trouble as the saw whines and bucks in your grasp.

If penetration is less than normal for the wood being cut, then look for one or more of the following situations:

a) Worn teeth
b) Loose bar tension
c) Worn sprocket
d) Hard foreign matter slowing down . . . and perhaps dulling . . . the saw

If operation is jerky or spreading, and chain chatters, then it's likely that a "peen" in the notch of the cutters and tie straps has been produced by dull teeth. This effect (spreading) can also be caused by a worn bar nose or bar rail. Result . . . tight joints, even in a new saw.

Before Using

There are several things that should be done each time **before** using a chain saw.

1. Check the **oil level** on the supply tank for bar-chain lubrication; replenish as needed. If the saw has been stored, check for excessive moisture and foreign particles in the tank; change oil if it is contaminated.
2. Check the **chain tension,** following the instruction book formula. Too much tension permanently stretches the chain, sets up a possible fracture under sudden impact or pinch. Too little tension causes excessive sprocket wear.
3. Check the **air cleaner**'s condition; it should be cleaned whenever it appears dirty.
4. Check the chain cutter teeth for **sharpness.** If they're dull, sharpen.
5. Brush off **cooling fins,** exhaust ports and muffler screen.
6. Inspect the **fuel filter** and replace if dirt-filled.
7. Check the built-in **sharpening stone** for excessive wear. It pays to have a spare for fast exchange.
8. Check the **spark plug** for dirt and gap. Adjust gap, using proper tools, which should always be kept with the saw.

Major Repairs

While major repairs such as teeth replacement, bar straightening, ignition and starter overhauls may require the convenience and tools of your workshop, you can handle some emergency work in the field. A vise and a basic tool kit in your truck may be all you need. Such a kit should include: bar wrench, plug wrench, screwdriver, small socket wrench set and special tools.

When you're through for the day, follow this procedure: clean the fins and ports, remove sawdust and other particles, check the straightness of the bar, look for tooth wear and damage, make sure all nuts and bolts are tight, check air filter and observe general cleanliness.

You may not intend to use your saw for some time, so pre-storage care is needed. For the bar-teeth system: oil. For the fuel system: run engine tank dry. For the general structure: clean.

You may want to wrap your saw for storage to keep out dust. Don't use plastic because this seals in moisture and corrosives. Rather, use newspaper, or butcher paper.

HANDY for Farm and Home



Movable – A small field-going compressor was built on trucks so it could be used around the buildings, or loaded in the pickup to go to the field. A small gas engine is used to run the compressor through a v-belt to a wooden flywheel (made of two 1-inch boards fastened together and a turned-down groove for the belt) and a converted power take-off unit. A long air hose from the compressor cylinder is carried on a bracket.



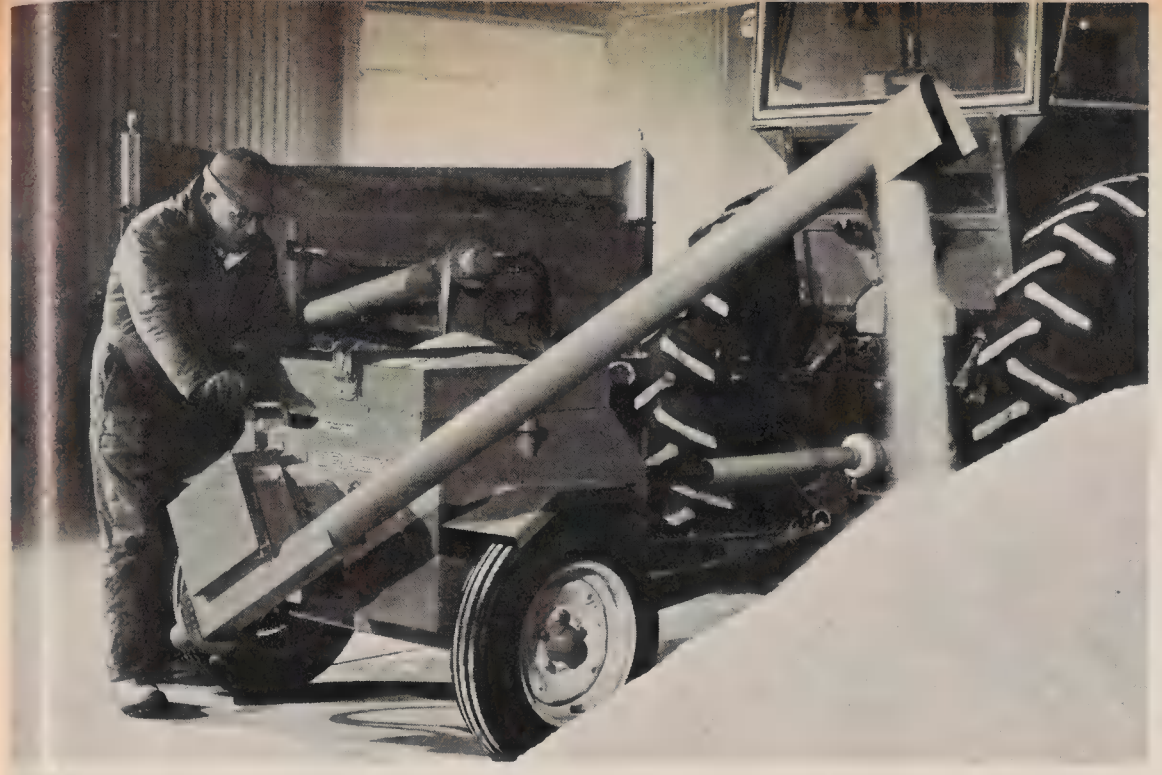
Holder – A two-foot length of heavy angle iron mounted on a stand makes a handy jig to hold short pieces of rod, etc. being welded end-to-end, and useful as an extra support when working with long material such as sickles, pipe, iron rod or boards at the workbench. The angle iron is mounted on telescoping pipes that adjust with hand screws, and on a disc blade for a base.

Soybean extruder

With protein-supplement costs soaring, northeastern farmers are showing unusual interest in growing their own soybeans . . . or at least purchasing them in large lots. However, there is a major stumbling block because unprocessed soybeans aren't the best feeds around.

For one thing, they contain a growth inhibitor called trypsin . . . and the cell walls of the bean tend to make it a bit difficult for the animals involved to digest all the nutrients easily. One approach to the problem has been to cook the beans . . . destroying the trypsin. However, the process must be carefully controlled to prevent heat damage to the protein.

(Continued on next page)



This portable Brady Model 206 Crop Cooker, manufactured by the Koehring Company, is processing soybeans by extruding . . . which cooks and breaks up bean simultaneously. The company also produces a self-contained unit powered by a 100-hp electric motor with a capacity of one ton per hour. Contact the manufacturer at: Koehring Company, Box 523, Milwaukee, Wisconsin 53201.

(Continued from page 56)

Recently, an expansion-extrusion process has been developed which does two desirable things at the same time. The beans are forced through progressively smaller openings . . . thereby rupturing the cell walls, and also cooking the beans with heat created by friction between squeezed bean and working parts.

The end product . . . if the process is done correctly . . . is highly digestible, and the trypsin is deactivated. Furthermore, the protein value has been preserved.

A new generation of on-farm (and at-mill) machines are even now being created that may bring an upsurge of interest in growing soybeans in the Northeast.

Go . . . . .

(Continued from page 45)

of the woodlands." Pinchot, later to become governor of Pennsylvania, devised the first comprehensive forest plan in the Western Hemisphere, which led in 1898 to the founding of the Biltmore School of Forestry, the first such school in the United States.

Mr. Vanderbilt believed that "lands must be productive as well as beautiful and well-kept." So along with the attention to forestry he wanted improved methods of farming and improved breed stock. He imported stock for his Jersey herd from the Isle of Jersey, and today some 4,000 acres of the estate form Biltmore Dairy Farms. It is one of the largest dairies in the South, and the 1,200 cattle form one of the largest pure-bred Jersey herds in the world. Visitors are welcome, and the "nursery" is always a delight.

Don't Hurry

A visitor to Biltmore should allow ample time — an entire day, perhaps more. Walking among the azaleas, about 40,000, is like moving through a dream world of color. If the time is right, masses of tulips will be in bloom, and the gnarled, old wisteria vines will drip great clusters of purple.

The mansion is a storehouse of priceless treasures gathered from all parts of the world. The entrance hall is marble-paved, and from it spirals the Grand Staircase, curving upward around a three-tiered wrought-iron chandelier suspended from the roof to light each landing. It is said to be the largest chandelier in the world hung from a single point. This magnificent entrance hall opens the way for a visitor to further observe the setting for what was once a very special era in American life. Let's Go!

Cooks . . . . .

(Continued from page 47)

by **Mrs. Elizabeth Amie, 1189 Park Avenue, Rochester, N. Y. 14610,** for her Watermelon Pickles. Here is her recipe.

WATERMELON PICKLES

2 quarts watermelon rind, cut up
1 cup white vinegar
1 cup water
3½ cups white sugar
⅛ teaspoon oil of cinnamon
⅛ teaspoon oil of cloves

Cut peeled rind in small pieces and soak overnight in salt water (¼ cup salt to 2 quarts water). In the morning, drain and rinse in cold water. Cover with cold water and cook until tender; drain.

Combine sugar, vinegar, water, oils of cinnamon and cloves; bring to boiling point, pour over rind and let stand overnight. In the morning, drain off syrup, heat and again pour over rind. Repeat next morning also. On the third morning, heat rind in syrup and seal in sterilized jars.

1973 Culinary Arts Competition

Mrs. Cheryl Lavin, Superintendent of the Culinary Arts Department at the New York State Fair, tells me that the theme for this year's competition will be "Cooking with Luv." Again a variety of foods will be featured each day and attractive prizes awarded for the winning entries.

Before you know it, August 28 will be here, and the gates will swing open on the 1973 New York State Fair. Plan now to enter the Culinary Arts competition. Entry booklets will be ready for mailing early in the summer. Watch for information in your local newspapers.

Books for Northeast Living

We have arranged with the publishers to supply directly to our readers, postpaid, any of the following books at the prices listed. Please allow three weeks for delivery.

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3773—A joy to combine. Outstanding yielder of high test weight grain. Planted widely throughout New York State. Farmers like the yield, standability and fast dry down rate of this hybrid.

Great for picking or silage

3873—This double cross hybrid is an outstanding yielder in the early maturity group. Dries down fast. Standability very good.

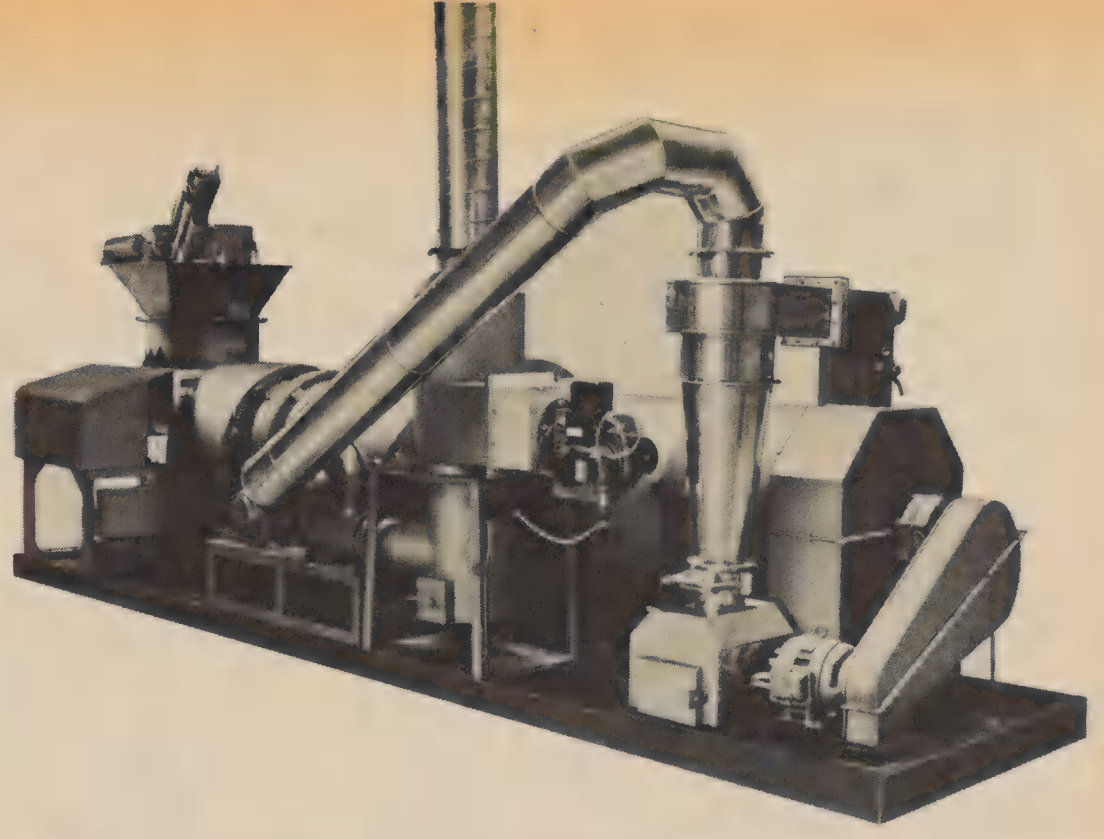
3853—Another "proven-performance" double cross doing a fine job for New York farmers. Same maturity as 3956A. Yields very well at 16,000 population.

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Perhaps a forerunner of things to come across a broader spectrum in animal agriculture is this dryer built by Big Dutchman, Zeeland, Michigan. It features a special feed intake that takes wet, raw manure directly into the dryer chamber and produces a marketable end product of high nitrogen and protein value. An afterburner is standard equipment on all units. Units have been in operation for over nine years.

POULTRY



Dehydrator – Manure disposal on poultry farms has long been a problem for poultrymen. A few innovators are experimenting with dehydration.

The Avian Bates farm near Wurtsboro (Sullivan County), New York is one . . . its product brand name is "Golden Egg," and it's owned by Hi Frank and Norman Hecht. The dehydration plant here has been operating only a few months.

The plant can handle 20,000 gallons of manure a day . . . about that from 225,000 birds. It's oil-fired, and has an afterburner intended to prevent odor and air pollution.

People associated with the poultry industry are watching this development with interest. The key to its success, they agree, is the question of economics. The drying procedure is costly . . . and long-run feasibility depends upon selling the dried material for at least enough to nearly break even. Up to now, no large-scale sales channels for dehydrated poultry manure have been developed.

Storage Bin – A new plan for an overhead plywood bulk storage bin for feed grain or fertilizer is available from the American Plywood Association. Designed to stand winds up to 80 miles per hour, the bin is 16 feet long and divided into four compartments, each with its own gravity flow hopper bottom.

Each section holds 280 cubic feet, or about 10 tons of fertilizer (60 pounds per cubic foot), or 7 tons of grain or feed at 50 PCF. The bin can be built with fewer or more compartments, depending on individual need.

For a copy of the plan, send 50 cents to the American Plywood Association, 1119 A Street, Tacoma, Washington 98401. Ask for Form W115.

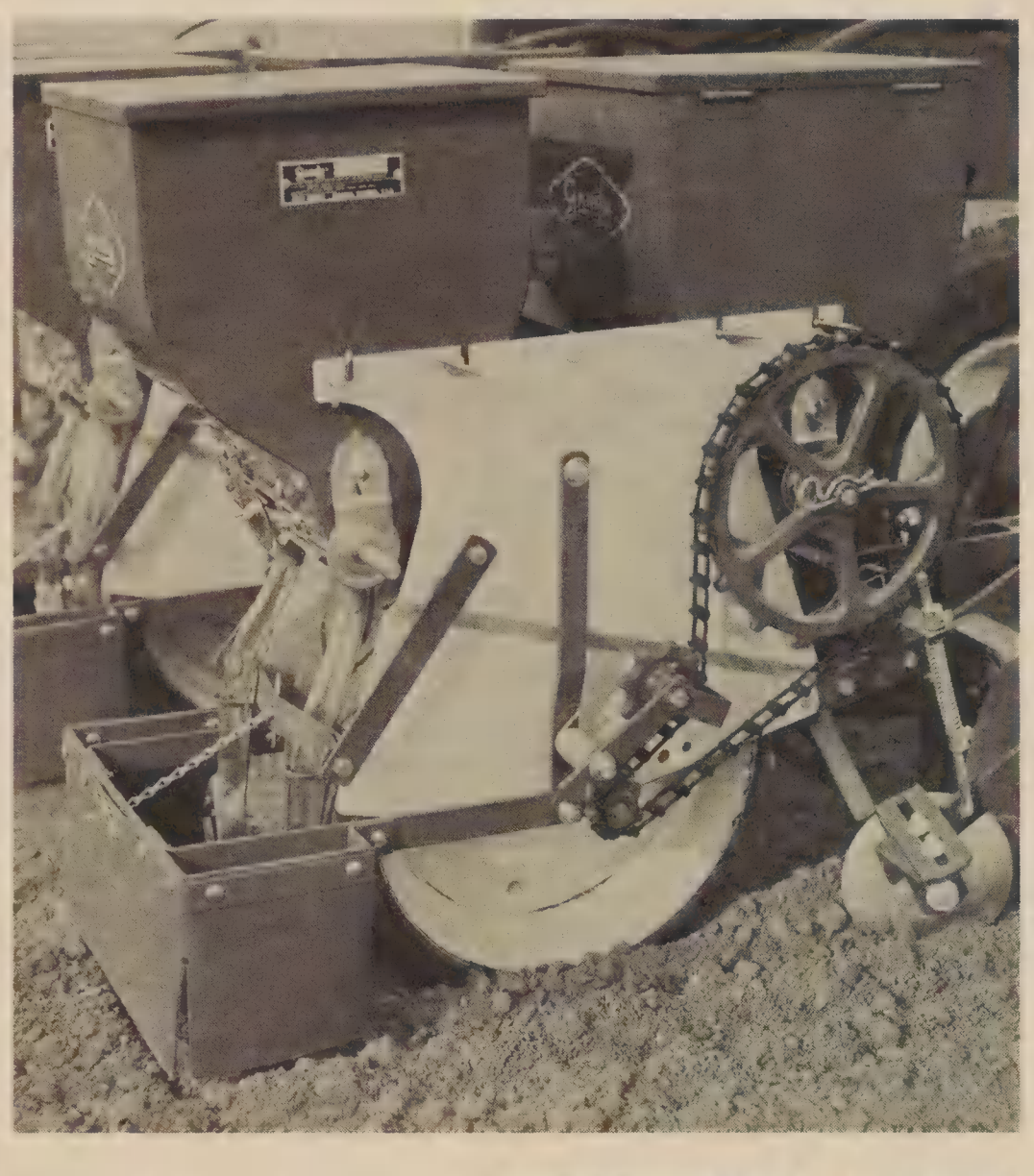
Eggs Award—Winner of a 1972 Ford Farm Efficiency Award was independent egg producer Sam Kofkoff, Fitchville, Connecticut. In a completely mechanized operation, he has a 155,000-bird flock averaging a hefty 240 eggs per bird annually. Pullets are in production at 20 weeks of age, and a new bunch comes into production every two months. There are birds of seven different ages on the farm at all times.

Newcastle – Although national emergency measures last spring halted a serious outbreak of exotic Newcastle disease, this viral infection . . . deadly to chickens, turkeys, pet birds and wild birds . . . is far from whipped, warns the American Veterinary Medical Association. Unless the disease is completely purged from the U.S., a reservoir of the virus could develop in wild or pet bird populations and necessitate a continuous vaccination of domestic birds. This would hamper poultry production and increase prices of poultry, poultry products and pet birds. Total losses to the public could be staggering.

The AVMA has urged the USDA to continue the Newcastle prevention program until the disease is completely eradicated.

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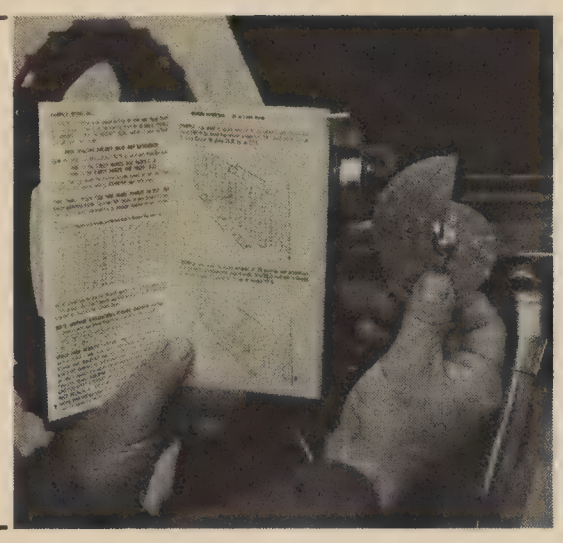
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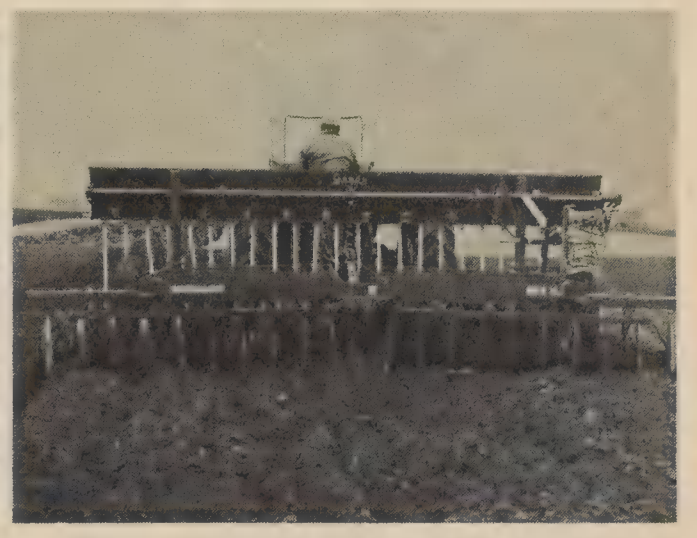
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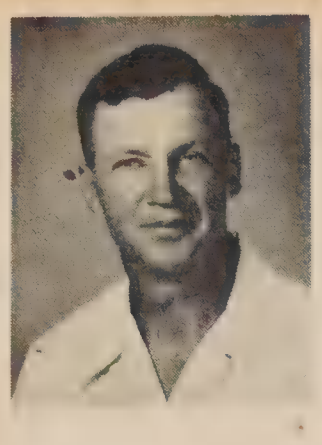
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Gayway Farm Notes

by HAROLD HAWLEY

STRETCHING THE MIND

Some of the more stimulating activities farm people engage in have to do with their attendance at the annual meetings of their co-operatives and general farm organizations.

The opportunity to hear some good speakers is designed to start this whole process of thinking above and beyond our day-to-day problems. Then the pounding out of policies forces folks to look ahead to the kind of future they desire. And at mealtime and in the halls, the give and take of good conversation and the exchange of experiences set the imagination to work. This is especially true when the convention brings together people from far off.

The national conventions of our general farm organizations are the ultimate in this whole business of stumulating and challenging the imagination of folks from all parts of the nation. Few resolutions on national farm programs, for example, are passed without the delegates being made aware of the special interests and desires of different sectional groups. It's a growth experience to be part of the action as resolutions are supported or amended and as the final wording and compromises are spelled out.

Fair Play

It's a tribute to the progress that has been made and to the caliber of the delegates that in spite of deeply held opinions, there is such a sense of fair play and a willingness to abide by the rules that the whole process can be run off smoothly and with a very minimum of friction.

On the return flight from Los Angeles after the American Farm Bureau convention, it was interesting to hear the talk about what had been heard from conversations with a few of the 10,000 farm people there from all over the country. Also, most of those aboard had spent two or three days on tours of California agriculture after the convention.

Animated discussions about 18,000 to 20,000-pound herd averages with 700-800 cows just had to lead to some new thinking about the situation at home.

New Views

How can they pay $35-$40 an acre for taxes with a water charge of $80-$100, interest on an investment of $2,000-$5,000 per acre, plus all the production costs, and still make money? Speculation as to how much gross per acre was needed to cover all these costs made most of us think in some new dimensions. In spite of the great differences in the types and kinds of agriculture and the accompanying problems compared to ours, exposure to the other fellow's situation has certainly started a lot of people approaching their own problems with a different point of view.

We get the feeling that this may be one of the biggest single reasons for people in any line of endeavor to go to conventions. At any rate, anything that changes attitudes sets the stage for change and progress. A bunch of farmers seem most likely to come up with a few adaptations they might use at home. They aren't at all apt to do what we've seen some businessmen and educators try to do . . . that is, to buy the whole approach and try to adapt it in whole or large part to their situation.

A farmer who is going to invest his own money in any change and who is aware of the vast differences in soil, climate and markets (to mention only a few) will most likely be tempted to try only a small part of what he saw that was new to him. However, from his adaptation of a part of what he observed can come big change and progress.

THREATENED SPECIES

One of the most overworked phrases these days seems to be "threatened or endangered species."

Considering the thousands of species which have come and gone (mostly in the long ages before man, or before man became a factor) it must be a little tough for some folks to logically explain what really significant difference it would make if some of our "endangered species" were to become extinct.

Sure, we share with most others the feeling that there would be some loss if the last rattlesnake were dead, but frankly we don't know why this would be a tragedy. We've got groups of nice people dedicated to saving everything from sea lions to alligators, from eagles to whooping cranes. More power to them, provided they recognize a few basics.

Change

The plains of the West once provided feed for millions of buffalo, but no more . . . and rightly so, we'd say. Conditions have changed and cattle, sheep, wheat, milo and soybeans are making better use of these western resources. This is not to say that we shouldn't preserve some buffalo in parks. Even here, their population should be controlled by hunting, so as to keep numbers in line with feed supply.

It bugs me that a herd of thousands of elk should be fed hay all winter every year at Jackson, Wyoming. Obviously, this merely means we are carrying many more animals than the land can support. Why?

Africa is going through some interesting learning experiences with its big game problems. To make land available for the expanding human population, game is being pushed out of some areas and concentrated in parks and preserves. Soon the game exceeds the feed supply in the preserve. Then the first step is to try and remove some individual animals. These efforts are usually "too little too late." To help control numbers in some of these preserves, liberal bag limits are now offered . . . even including some rare or "endangered" species.

Maybe all they are demonstrating is that in the situation of the 1970's, it may be realistic to settle for small herds of various species in these parks and control numbers to the environment. And just because there was once a lot of this or that in a certain state or area, let's not go around thinking we shouldn't rest easy until similar numbers of those species again roam the land. It's just not in the cards.

Equally important, I can't see holding back economic change just because a few remaining individual specimens will vanish from an area. A park or zoo can preserve the species and give future generations a chance to view it without denying man the privilege of using the area for its highest use.

FEED SHORTAGE

From time to time, shortages of feed or feed components are and have been occurring in different areas of the Northeast. While reasons aren't all that easy to come by, a few of the causes do seem aparent.

Port and shipping facilities are pretty badly strained to handle the tonnage of grain destined for export. Particularly on the East Coast, there are not enough elevators to hold grain from the time of its arrival until it can be loaded aboard ship. This means that when carloads, or as is now happening, whole trains of grain arrive at a terminal, the entire train or trains of cars must be held up until a ship is berthed. It's tragic to tie these cars up when they are so badly needed not only to move grain for export but also for domestic use.

Other problems enter the picture. A large trucking firm trying to fulfill its contract to deliver grain out of Buffalo finds the Long Island Railroad on strike. If the grain is to reach the duck growers, it must get there by truck—more time involved.

It's a sign of the times that with fuel shortages becoming a daily fact of life, thousands of tons of corn, soybeans and milo in the Corn Belt, which came in from water-laden fields needing to be dried, has not been dried because driers had to be shut down.

I don't know how much this has influenced shipments to the Northeast, but certainly all these things make normal movement difficult.

Next on the list of aggravations we hear about are the mills which just can't get a steady supply of the protein or the high-protein mixes that go into poultry or dairy feeds. Without these, a binful of small grain or a grist from the farmer still doesn't add up to a grain or mash ration for the herd or flock.

Seems as if the summer of '72 was a hard one, followed by a tough fall and now a winter beset with problems. Hope springs eternal in the heart of a farmer, however, and if the unusually heavy sales of tractors and other large items reported by area dealers are any indication, when spring puts in an appearance the industry will be off and running as hard as ever.

CITIES BY DESIGN

Most of us assume that cities didn't just happen . . . they grew from humble beginnings because of some very real advantage of the site. Either someone located on a good waterway or port, or where good trails, roads, waterways or even railroads crossed, or where water power, good soil, lumber supplies or minerals were available. Then the economic advantages just gave impetus to growth.

The growth attracted the services needed in a community, making it a good place to do business and to live. The presence of skills, merchandise, and services attracted more business, etc. At least, that's how we always thought it happened.

All this continued until in the case of some of our larger cities the congestion, the delays, the wage rates, and the high rents came to offset the natural advantages which caused the growth in the first place. About this time some industries might decide to move elsewhere or to decentralize and do part of their business in less expensive, less congested areas.

Planning

Many of the cities we've known have demonstrated some of the characteristics mentioned, even up to and including some of the signs of maturity and decay. Now we are about to see "planned cities," started not by accident of location and subsequent growth, but by the conscious and deliberate discussion of planners.

Two such cities, one each near Syracuse and Rochester, are in the works. Unlike other cities with humble beginnings, these new centers will evolve more or less full blown within relatively few years. Parks, schools, churches, shopping plazas, transportation, banking and service industries have all been included in the plans. It's not unreasonable to think that the private sector will move in to provide these services as planned, inasmuch as the economic opportunity will hopefully be there just as in any other city.

The interesting thing about these proposals is the waves they make. Naturally, people who will be involved are trying to guess how it will influence them. They guess it will mean a windfall if they own land. They reason it means congestion if they must live nearby, so some are already looking for homes or farms away from the proposed places.

Businesses talk of the best places to locate in relation to present opportunities and the future trade center. Real estate people are up and doing to stimulate additional activity and speculation just by virtue of their attempts to find the home or farm site somebody wants. It's a high-stake poker game and there will be some big winners and surely some losers.



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(refund on book)
Mrs. Ruth S. Davis, Berkshire 44.96
(billing cancelled)

PENNSYLVANIA

Mrs. George D. Butts, E. Stroudsburg.. 17.73
(refund on dress)

MAINE

Mrs. Lawrence Jordan, Houlton 11.59
(refund on order)

VERMONT

Mr. Herbert E. Clark, Brandon..... 26.23
(billing cancelled)

MASSACHUSETTS

Mrs. Ernest Thayer, Salisbury 11.95
(refund on merchandise)
Mrs. Imelda Ansel, Bellingham..... 12.35
(refund on plants)

OUT OF BUSINESS

The American Book Club of Wilmington, Delaware, and Hazelton, Pennsylvania, has gone out of business. Claims against them should be sent to: Mr. Cletus P. Lyman Sr., Attorney, 1512 Latimer Street, Philadelphia, Pennsylvania 19102.

Stemen Card Company of San Antonio, Texas, also has closed up shop. For details about processing complaints, contact: Better Business Bureau Inc., 406 West Market Street, San Antonio 78205.

HOMEWORK

The office of Attorney General Louis J. Lefkowitz reports that Foster-Hamilton Inc., 1824 Bath Avenue, Brooklyn, New York, have agreed to discontinue advertisements that purport to offer employment unless actual jobs are open and available to qualified persons who answer such ads.

The company also agreed to cease and desist from advertising for the purpose of selling printed material unless that fact and the price of the material were clearly set forth in the ad.

Those sending for free details as advertised were being asked to send $3.00 for literature. This merely suggested how they could seek employment. No prospective employers were named. Thousands of dollars were collected from victims who wanted to earn money at home.

Received in the same mail as the news release from the Attorney General was a clipping of an ad sent in by a reader. This one implied that if a person would send $1.00, he would receive names, envelopes, stamps and other supplies which supposedly would enable him to make $25.00 per hundred stuffing envelopes. What was actually offered was a "complete set-up" which would probably only tell him how to look for such work.

We have found that firms who have large mailings either do them with their regular staff, hire extra help to come in, or contract for the job to be done by a professional agency.

DOOR-TO-DOOR SALES

The New York State Home Solicitation Sales Act, Article 10-A of the Personal Property Law, became effective September 1, 1970. Providing a cooling-off period after signing a contract, its principal provisions are listed below.

1. Involves sales made at the buyer's residence with no previous negotiations at a business establishment.

2. Must not involve a preexisting revolving charge account.

3. Does not apply when the buyer has a right of cancellation under federal law.

4. Purchase price must be payable in four or more installments.

5. With some exceptions, buyer may cancel until midnight of the third business day after day of sale.

6. Notice of cancellation must be in writing and is considered given when deposited in a mailbox. (Note: Use of registered mail is suggested.)

7. A sale *may not be cancelled* if the buyer required goods or services without delay because of an emergency; if the seller in good faith has begun a substantial performance of the contract; or if any goods involved cannot be returned to the seller in the same condition as received.

8. Except with emergency purchases, the seller must furnish notice of cancellation rights. Until this is done, the buyer may cancel in any manner and by any means.

9. Any down payment or goods traded in must be returned to the buyer within ten days after cancellation, except the seller may retain as a cancellation fee five percent of the cash price, not to exceed the cash down payment.

10. The buyer must make any goods to be returned available at his residence, and the seller must claim them within forty days or they become the property of the buyer.

The Federal Trade Commission has issued a regulation which also provides a three-day cooling-off period, but no effective date has been announced. The regulation is similar to the New York State law, with a few differences.

1. Purchase price must be $25.00 or more, with no installment provision.

2. The seller must claim any goods

(Continued on page 62)

Dutch Reynolds local agent from Palmyra, N.Y. has sold and helped thousands of folks throughout Wayne County since 1961. His personal touch and concern for helping others has gained him praise and respect. "Dutch" is shown delivering N. A. Help.







FARM

Mr. Smith, Palmyra, N.Y. was lowering the unloader inside the silo. As he lifted on the door to the shute, it slipped loose and fell on him in the wet ensilage. Badly injuring his back he ended up in the hospital for surgery to remove a herniated disc. His combination of four N.A. policies paid medical expenses and weekly income totalling $1725.00. He wrote: *"Thank you for the money when I injured my back; I appreciate your quick settlement."*

Melvin Smith

HOME

Mrs. Caffyn, housewife from Palmyra, N.Y. walking from kitchen to dining room tripped when the pet cat ran under her feet. She was taken to the hospital by ambulance where she stayed forty-five days with a fractured hip. Carrying but two N.A. policies she drew $1394.28. This is her note to North American: *"I would like to thank you for money you sent me so promptly when it was so badly needed. It is really great protection."*

Lucille Caffyn

HIGHWAY

Mrs. Sindinski, Marion, N.Y. driving to work approached an intersection when another car failed to stop. After the collision she spent fourteen days in the hospital suffering a concussion, cut face, injured chest and knees. She received a total of $2060 from three N.A. policies and wrote: *"Thank you very much for the settlement I received from my auto accident. The weekly income and medical expenses you paid was greatly appreciated."*

Rose Sindinski

NORTH AMERICAN ACCIDENT INSURANCE COMPANY
(In New York State)
NORTH AMERICAN COMPANY
FOR LIFE AND HEALTH INSURANCE (In Other States)
GENERAL OFFICES: CHICAGO, ILLINOIS
SAVINGS BANK BUILDING ITHACA, NEW YORK



for better crop quality,
maximum yields, frost protection
We'll design and install a system for any requirement.
We offer all types—
- Wheel Row
- Solid Set
- Center Pivot
- Hand Move
- Giant Sprinkler
- Trickle
- Liquid Manure Disposal

Financing and Leasing—
- Available Nationally
- Amounts up to $1,000,000
- Payments up to 10 years

Write or phone: Dave deGraff, Pres.

WHOLESALE & RETAIL
DESIGN & INSTALLATION
WILLIAMSTOWN
IRRIGATION, INC.
WILLIAMSTOWN, N.Y. 13493
AREA CODE 315 964 2214

96.2%
CHOOSE
F.C.T.*



UNADILLA SILOS

It's a fact! Almost all of our customers order their Unadilla Silos Factory Creosote Treated*. They know this special vacuum pressure creosote treatment is a wise investment. Wood is a fine, natural insulative material **AND** it is 100% acid-proof. These two features alone make Unadilla lock-dowelled wood stave Silos a blue-chip investment. FCT adds extra years of dependable, maintenance-free service. Buy right the first time . . . Buy Unadilla! Send for free catalog.

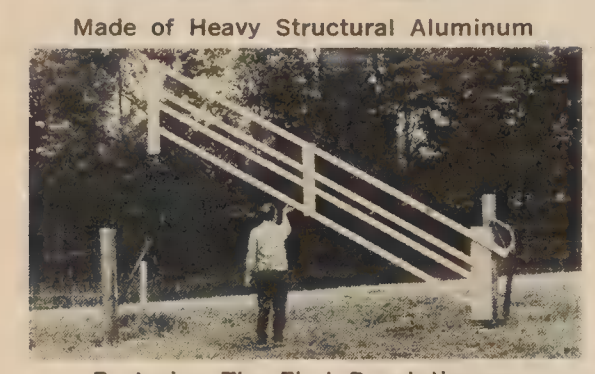
UNADILLA SILO COMPANY
Box B-33 • Unadilla, N.Y.

Also wood glue laminated barn rafters

UNADILLA SILOS

THE EZ LIFT GATE

Made of Heavy Structural Aluminum



Featuring The First Revolutionary Innovation in Gates Since Noah's Ark

HORSE HIGH • BULL STRONG
CALF TIGHT • TROUBLE FREE
NO SHOVELING • TIME SAVING
ATTRACTIVE • LONG LASTING

For longer gate requirements use two gates. No center post needed. Spring operated. 12′ — 14′ — 16′ gates available.

Call or write: Joseph Swantak, Inc.
Distributors
Delhi Stage,
Oneonta, N.Y. 13820

Dealer inquiries invited.

H&S END SECTION

Easy to install on any mower. Guaranteed not to plug-up in the end guard. Available in smooth or underserrated chromed steel. Price $1.95-$2.15, postpaid. Prices subject to change without notice. See your dealer or Write

H & S End Section Co.
Dept. Q , Bedford, Iowa 50833

READER SERVICE . . . . .

(Continued from page 61)

involved within 20 business days.

3. There shall be no penalty or fee collected by the seller.

4. In addition to exclusions as provided in the state law, the FTC regulation excludes purchases of insurance, purchase or rental of property, and purchases of stocks or bonds from a registered broker-dealer.

FAT IN THE FIRE

During June of last year, the United States Postal Service issued a complaint against Baslee Products Corporation, charging them with false representation. Mail delivery was suspended, preventing Baslee from receiving any new orders and/or cash for merchandise.

The company had advertised that their "Marvex Plan" would result in weight loss, that it would require no self-control, that participants could eat fattening foods, and that they could eat five or six meals a day. All one had to do was to take one tablet daily.

A decision was handed down in August in favor of the Post Office, and the mail being held was returned to senders. An appeal has been filed in District Court; but, to our knowledge, no decision has been rendered.

Readers should submit claims to the company's attorney, Mr. Robert Ullman, c/o Bass and Ullman, 342 Madison Avenue, New York, New York 10017.

COMMENTS FROM READERS

The January item "We Can Get It for You" proved timely. The issue was barely off the press when we started getting letters about Unity Buying Service. Apparently, they are involved in a large mailing campaign — extending at least from Vermont to Pennsylvania. Three readers wrote along the following lines:

"We were just about to send $6.00 to Unity Buying Service when your January issue arrived. As I was joining Unity in order to buy a chain saw, I figure your article probably saved us a couple hundred dollars. Thank you very much for READER SERVICE and a general all-purpose farm magazine of such high quality."

* * *

"I read your article about Unity Buying Service after receiving the literature from them. I didn't bite on it because it sounded too good to be true. Keep up the good work of informing the public about such outfits. People would save a lot of money and trouble if they would only read and take your advice on these matters. Thanks for a very fine magazine."

* * *

"You asked me to keep you informed about my complaint. I received a form from and have corresponded with the Assistant Attorney General. I also made a personal visit to Unity Buying Service. The membership fee of $10.00 has been refunded, but the $71.61 for merchandise ordered is still outstanding. I got the impression that they might be in the process of changing their name."

ALLIS-CHALMERS

WE CAN HELP YOU GROW.

New Jersey

Columbus
Art's Repair Shop
Elmer
Roork's Farm Supply
Route #77
Flemington
John M. Saums & Sons, Inc.
Route 31

New York

Adams Center
Talcott Falls Tractor Sales
Route #11
Alexander
Alexander Equipment
Buffalo Street
Auburn
Main & Pinckney
RD #6 Mutton Hill Road
Baldwinsville
R. Church & Sons, Inc.
Bangor
Debyah Farm Implement
Rt. 11 B
Bath
Lynn Burns
RD #1
Boonville
Denslow Equipment & Excavation Co.
Rt. 12
Bullville
Schwope Machinery
Canandaigua
Don Howard
Cherry Valley
Flint's Garage
Clymer
Dandee Service
Cobleskill
Cobleskill Welding Service, Inc.
107 North Grand Street
DeRuyter
H. W. Cook Farm Service
Albany Street
Frankfort
Urgo's Farm Supply
133 Main Street
Harpursville
E. E. Mathews & Son
Hillsdale
Midway Farm Equipment
Route 22
Honeoye Falls
Kingston Farm Machinery, Inc.
24 Norton Street
Hornell
Thacher Bros.
Almond Street
Horseheads
Dann's Equipment Co.
412 Level Acres Drive
Jamestown
Jamestown Farm Supply, Inc.
333-347 Fluvanna Avenue
La Fargeville
Walldroff Farm Equipment
Lisbon
McBath Farm Implement
Lisbon Morley Road
Locke
The Atwater Company
Lowville
Roes Equipment Company
Route 26
Martville
Kyle Farm Machinery
RD Martville
Medina
Earl Loades & Son
R.D. #3 Ridge Road
Munnsville
Howard Landers
Newark
Arcadia Oil Co., Inc.
515 North Main Street
Nichols
Thetga Farm Supply
9 Kirby Street, Box 8
North Cohocton
Robert Miller Co.
North Tonawanda
Maerten Motor Service
6869 Shawnee Road
Oneonta
Oneonta Tractor Sales, Inc.
180 East Street
Perry
Kelly's Garage
Perry Center
Richland
Mattison Farm Supply
Route #1
Rome
South Rome Equipment
R. D. #1
Route 26 South
Rossburg
Harold R. Rork
Schuylerville
Herry's Farm Equipment
R. D. #1
Seneca Falls
Salerno Farm Supply
R. D. #1
W. Chazy
K. V. Tractor Sales
Route 348
Wellsville
Paul F. Culbert & Sons

Pennsylvania

Athens
Athens Equipment Co.
RD #1 Route 220
Bloomsburg
Nichols Farm Equipment
Rural Delivery #1
Factoryville
Trail Implement Co.
Route 11
Honesdale
Marshall Machinery
R. D. #4
Hunlock
Willard Benscoter, Inc.
R. D. #1
Mansfield
Canyon Implements, Inc.
R. D. #1, Route 6
Mill Hall
Paul Dotterer Farm Equipment
R. D. #2
Pennsylvania Furnace
Johnston Farm Equipment

Rhode Island

Hope Valley
Meridian Equipment Sales & Service, Inc.
Hope Valley Division
Main Street

CONVENTIONAL?
WHEEL TRACK?
NO-TIL?
NARROW ROW?



NO MATTER HOW YOU PLANT, YOU NEED THE ACCURACY OF A SERIES 70 SYSTEM...



You can switch from one planting method to another with this planter unit... this year, next year. And count on an even stand no matter which way you put a crop in.

The 70 Series Planter Unit fits the complete range of Allis-Chalmers planting systems. They, in turn, give you a choice of planting two rows to twelve, in widths as narrow as 18 inches. In a variety of soil or field conditions.

Whether you go No-Til, narrow row or conventional, the Allis-Chalmers 70 Series Planter Unit will meter seed accurately. Put it in the ground at uniform depth, acre after acre. Hopper bottom and seed plates are specially plated to handle seed gently, smoothly... to fill the cells for consistent accuracy. The short boot means a short drop, less seed bounce... and more accuracy.

Ask your Allis-Chalmers dealer to prove how you can profit with 70 Series Planter Units and the right Allis-Chalmers planting system. You may pull a switch yourself, right then and there. And ask him about Allis-Chalmers on-the-spot financing. Allis-Chalmers Agricultural Equipment Division, Milwaukee, Wisconsin 53201.

NO-TIL is an Allis-Chalmers trademark

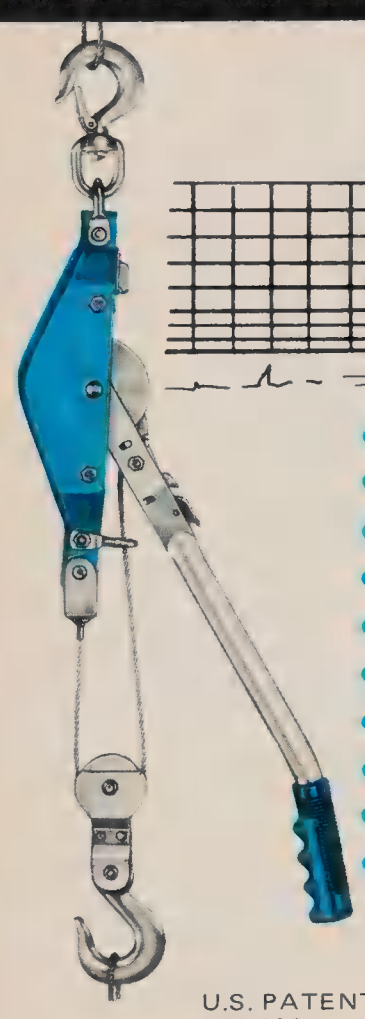
WE CAN HELP YOU GROW.

ALLIS-CHALMERS

Maes SPECIAL SPRING SALE!

TAKE COMPLETED COUPON TO YOUR DEALER BEFORE MAY 1, 1973

SPECIAL NO. 1 — Maes 2 TON PULL-N-HOIST





- STRETCH FENCE
- LIFT ENGINES
- REPAIR MACHINERY
- PULL CALVES FROM COWS
- USE AS LOAD BINDER
- PULL OUT STUCK CARS
- LIFT TRACTOR AXLES
- PULL STUMPS
- SUPPORT LIVESTOCK
- MOVE LOGS, etc.

1001 uses . . . Farm, Home, Industry, etc.

U.S. PATENT 211,198

At regular list price Maes 2 Ton Pull-N-Hoist is just a few dollars more than 1 Ton hoists . . . but at $4.00 special spring sale discount, the Pull-N-Hoist is a value you won't beat. Check around . . . you'll find you can save about $10.00 compared with the prices of other 2 Ton hoists.

But the value and price aren't the biggest features . . . visit your Maes Dealer today and compare quality . . . if you don't find the Pull-N-Hoist at least 20% better made than others we would be very surprised.

$4.00 OFF ON 2 TON PULL-N-HOIST

LIMIT OF ONE SPECIAL PER COUPON . . . BE SURE TO COMPLETE COUPON AND TAKE IT TO YOUR DEALER

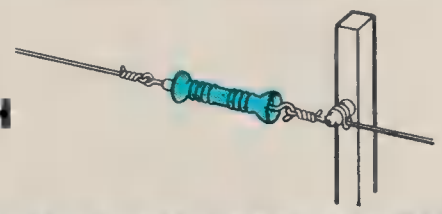
SPECIAL NO. 3

FOR ALL FARMERS
Maes HANDY-GATER® ELECTRIC FENCE GATE HANDLE



For years farmers, horsemen, etc. have been searching for a safe, handy electric fence gate handle which doesn't break easily. The Maes Handy-Gater is a real rugged critter — just jump on one and see. We don't advise you to jump on the other brands as you'll probably have one less gate handle. Will outlast the old fashioned cheap plastic ones 4 to 1. Made of high density 90% virgin polyethylene.

ONLY .65¢ EACH



U.S. PATENT 3684248

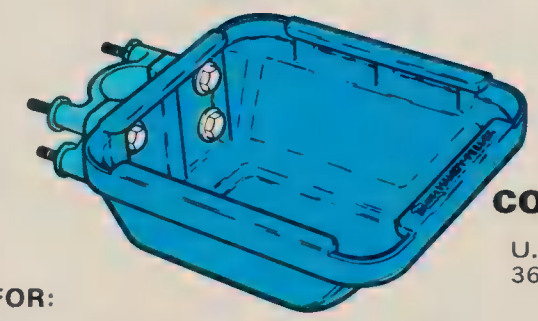
BUY FIVE . . . GET TWO FREE

LIMIT OF ONE SPECIAL PER COUPON . . . BE SURE TO COMPLETE COUPON AND TAKE IT TO YOUR DEALER.

SPECIAL NO. 4

Maes HANDY-FEEDER

Holds 3 to 5 lbs. of loose Salt or Mineral.



ONLY $2.95 each complete

U.S. PATENT 3683861

FOR:
- DAIRY CATTLE
- HORSES
- CALVES
- YOUNG HOGS

FOR:
- STANCHIONS
- COMFORT STALLS
- BOX STALLS, ETC.

IT'S A FACT THAT FREE CHOICE SALT AND MINERAL FEEDING INCREASES LIVESTOCK PROFITS HANDSOMELY. INSTALL HANDY-FEEDERS TODAY AND PROVE THIS TO YOURSELF.

BUY ONE . . . GET THE SECOND ONE FREE

LIMIT OF ONE SPECIAL PER COUPON . . . BE SURE TO COMPLETE COUPON AND TAKE IT TO YOUR DEALER.

SEE YOUR Maes DEALER TODAY

If none near order direct . . . If ordering direct, send list of other Maes products you want to buy. Add .50c shipping charges on orders costing you less than $20.00.

Your Name _____

RFD, Road, Box No., etc. _____

City _____ County _____

State _____ ZIP _____

OFFER VOID WHERE PROHIBITED BY LAW

Maes DEALER _____

Dealer City _____

State _____

Maes INCORPORATED, DEPT. , HOLLAND, MICH. 49423

TAKE THIS COUPON (COMPLETED) TO YOUR MAES DEALER BEFORE MAY 1, 1973.

INSTRUCTIONS . . . Present this completed coupon to any participating Maes Dealer and BUY ONE of the above three "Specials". On "Special" No. 1 your dealer will give you a $4.00 discount off his normal selling price. On "Special" No. 3 your dealer will give you two Free Handy-Gaters when you buy five Handy-Gaters. On "Special" No. 4 your dealer will give you one Free Handy-Feeder when you buy one. Please check below which "Special" you purchased from your dealer.

- ☐ No. 1 2 Ton Pull-N-Hoist at $4.00 Off.
- ☐ No. 3 2 Free Handy-Gaters w/ purchase of 5 Handy-Gaters.
- ☐ No. 4 1 Free Handy-Feeder w/ purchase of 1 Handy-Feeder.

INSTRUCTIONS FOR MAES DEALERS . . . Be sure to mail completed coupons WITH YOUR NEXT ORDER (please do not phone in coupon orders) . . . before 8-1-73. On "Special" No. 1 you will be given $4.00 off the earned wholesale cost of the Pull-N-Hoist(s) purchased on the order accompanying the coupon(s) on the basis of one Pull-N-Hoist purchased for each "Special" No. 1 coupon turned in. On "Specials" No. 3 and No. 4 you will be sent FREE goods to replace those you gave away on a one Free for one given away basis. On all three "Specials" you also need to order at least one special for each coupon turned in — NO EXCEPTIONS.

VISIT YOUR NEAREST MAES DEALER TODAY

NEW JERSEY

BERGEN CO.
Palisades Park — Kraut & Benson Ind. Supply

BURLINGTON CO.
Columbus — Art's Repair Shop
Columbus — Jack VanAken Dairy Supplies

ESSEX CO.
E. Orange — Allair Lumber & Millwork
Millburn — Turf Grass Inc.

[illegible] CO.
Secaucus — Rozansky Feed Co.

HUNTERDON CO.
Flemington — Poniatowski Brothers Equip.

MONMOUTH CO.
Middletown — Garden Center

MORRIS CO.
Long Valley — Fred W. March

OCEAN CO.
N. Egypt — Agway, Inc.

ORANGE CO.
Montague — Montague Supply

SALEM CO.
Elmer — Alvin E. Crispin

SOMERSET [illegible]
Gladstone — G.F. Hill & [illegible]

[illegible] CO.
Newton — Christian Farmers Assn.
Sussex — Christian Farmers Assn

UNION CO.
Kenilworth — O.K. Kimmell Co., Inc.

WARREN CO.
Belvidere — G. Hiram Buchman
Columbia — G.C. Kinney & Son
Stewartsville — Shillinger's Mill

NEW YORK

ALBANY [illegible]
Albany — Bernard & Blanchard
Altamont — Altamont Agway

ALLEGHENY CO.
Andover — D & L Feeds, Inc.
Belmont — Wayne Feed Supply
Cuba — Botens Dairy Supply
Fillmore — Fillmore Feed Service
Fillmore — Fillmore Mill
Wellsville — Crittendons Dairy Supply

BROOME CO.
Binghamton — Binghamton Agway Farm Store
Binghamton — B.W. Elliot Mfg. Co.
Binghamton — The Ellison Co.
Chenango Forks — Chenango Forks Agway
Deposit — Bryce's Hardware
Harpursville — A.A. Mudge & Sons
Marathon — Hess Livestock
Whitney Point — Manwaring Equipment
Windsor — Windsor Agway

CATTARAUGUS CO.
Cattaraugus — Gramco, Inc
Cattaraugus — Jess Brown
Ellicottville — Ellicottville Agway Ser
Franklinville — Philips & Sibley, Co.
Franklinville — Gramco, Inc
Freedom — Glen Phillippi Lumber Co.
Little Valley — Gramco, Inc
Portville — Check-R-Board
Salamanca — Agway Service
South Dayton — Thorp & Mann Feed Co.
West Valley — West Valley Milling Co.

CAYUGA CO.
Cato — Benton Dairy Service
Moravia — Moravia Agway
Moravia — Wheat Bros.
Port Byron — Burke's Hardware & Garage
Scipio Center — A.G. Krueger Feed & Supply
Weedsport — Otis Jorolemon & Sons

CHAUTAUQUA CO.
Cherry Creek — Gier's Agway Service
Falconer — Agway Supply
Fredonia — Fredonia Feed & Poultry
Jamestown — Central Tractor Parts
Sherman — Farmers Mill, Inc.
Westfield — Westfield Agway

CHEMUNG CO.
Elmira — E & E Ford Sales, Inc.
Horseheads — Horseheads Agway
Horseheads — Marshall's Feed Mill
Pine City — Pine City Equipment

CHENANGO CO.
Afton — Afton Agway
Afton — A.A. Mudge & Sons
Bainbridge — Charles & Eldred Con
Brisben — Chenango Farm Supply
Earlville — Ross Primer El. & Refgn
Greene — Mason Feed Co
Mt. Upton — A to Z Farm Supply
New Berlin — I.L. Richer & Co. Inc
S. New Berlin — South New Berlin Valley Supply
Norwich — Norwich Farm Implement
Oxford — Wayne Feed Supply
Sherburne — Chenango Farm Supply
Sherburne — Sherburne Agway
Smyrna — Simmons & Mummery

CLINTON CO.
Champlain — Bechard's Farm Equipment
Chazy — Wayne Feed Supply
Ellenburg — Chilton Brothers
Plattsburg — Plattsburg Agway
[illegible] Chazy — Dragon's Feed Store

COLUMBIA CO.
Chatham — Chatham Agway
Claverack — Claverack Agway
Germantown — Germantown Co Op
Kinderhook — Kinderhook Pologicat Assn

CORTLAND [illegible]
Cincinnatus — Cincinnatus Agway
Cincinnatus — McKee Equipment Co
Cortland — Agway, Inc.
Cortland — Spencer Dairy Service
Homer — Homer Agway
Homer — Wheat Brothers
McGraw — McGraw Agway
Marathon — Marathon Agway
Truxton — Truxton Agway

DELAWARE CO.
Andes — E.M. Decker & Son, Inc
Bloomville — Bloomville Agway
Delhi — Delhi Agway
Delhi — McDowell Walker
Franklin — Matteson Feed & Supply Co
Hancock — A.A. Mudge & Sons, Inc.
Margaretville — Margaretville Agway
Margaretville — Kelly Power Equip. Inc.
Roxbury — Lutz Feed Co of Roxbury
Sidney — A.A. Mudge & Sons, Inc.
Stamford — A.W. Demarest & Sons
Walton — Camp Milling, Inc.
Walton — Walton Agway
W. Harpersfield — West-Nesbit, Inc.

DUTCHESS CO.
Millerton — Wayne Feed Supply

ERIE CO.
Akron — Don Beck
Collins — Gramco, Inc
E. Concord — Shamel Milling
Elma — Blossom Agway
Springville — Austin B. Blanchard
Springville — Gramco, Inc

ESSEX CO.
Wadhams — Lewis Farm Supply
Whallonsburg — Robert Lincoln Farm Equipment

FRANKLIN CO.
Burke — Whitney Farm Supply
Malone — Collins Feed
Malone — Elliot and Hutchins, Inc

FULTON CO.
Broadalbin — Broadalbin Coal Supply
Gloversville — Herbert I. Fairbanks

GENNESSEE CO.
Basom — Clair Hodgins
Batavia — Central Tractor Parts
Darien Center — Rapp Bros.
LeRoy — Crockers Country Store
Oakfield — Ag. Equipment Inc
Stafford — Coward's Feed Store

GREEN CO.
Oak Hill — Deans Catskill Valley Mills

HERKIMER CO.
Dolgeville — Dolgeville Agway
Dolgeville — Dolgeville Producers Co-Op
Frankfort — Urgo's Service
Herkimer — Herkimer Agway
Little Falls — Rock City Agway
Poland — Poland Agway
Van Hornesville — Van Hornesville Milk Prod
West Winfield — Schoonmaker's Feed Co.

JEFFERSON CO.
Adams — G.L. Thomas & Sons, Inc.
Belleville — Herron Farm Supply
Carthage — M.P.S. Roe, Inc
Evans Mills — Evans Mills Agway
LaFargeville — George W. Henry Co.
LaFargeville — Glenn Johndrow
Limerick — M.P.S. Roe, Inc.
Philadelphia — M.P.S. Roe, Inc.
Pierrepont — Houghton's Farm Supply
Watertown — L.M. Allen Dairy Supply
Watertown — Walter H. Brisnetts
Woodville — M.P.S. Roe, Inc.

LEWIS CO.
Beaver Falls — Lehman Farm Supply
Croghan — Farney & Steiner
Lowville — Lowville Farmers Co Op
Lowville — P. & H. Feed Service
Lyons Falls — Lyons Falls Farmers Co Op

LIVINGSTON [illegible]
Avon — Neals Sales & Service
Avon — Welch Dairy
Caledonia — [illegible] Hamilton & Son
Dalton — Baker Milling Co.
Dansville — Dansville Farm Supply
Lima — Edwin Blodgett & Sons
Nunda — Nunda Farm Service

MADISON CO.
Bouckville — Bouckville Mill
Canastota — Canastota Agway Service
Cazenovia — Waterbury & Coe Feed & Farm Supply
Chittenango Station — Sanford B. Hatch
Earlville — Earlville Agway
Hamilton — Lamb's Feed Service
Leonardsville — Leonardsville Hardware
New Woodstock — New Woodstock Milling Corp.
Oneida — Beacon Milling Co

MONROE CO.
Churchville — Churchville Agway Service

MONTGOMERY CO.
Amsterdam — Amsterdam Agway
Fonda — Fonda Agway
Fort Plain — Agway Farm Store
Fultonville — Lynwood Hand Farm & Garden Ctr
Nelliston — Oldicks Milling
St. Johnsville — Valley Equipment Co

NIAGARA CO.
Lockport — O'Bryne Bro. Inc
Lockport — W.H. Rhinehart, Inc
Middleport — Roger L. Pearson
Newfane — Roycraft's Feeds
Sanborn — Sanborn Milling Co.
Wilson — Thilk Sales & Service

ONEIDA [illegible]
Boonville — Boonville Farmers Co-Op
Boonville — Caswell Supply Co
Boonville — Gilmore & Bailey
Camden — Camden Agway
Clayville — Richer's Farm Service
Clinton — Clinton Farm Supply
Holland Patent — Holland Patent Agway
Oriskany Falls — Peters Feed Store
Paris Station — Lincoln Davies Agway
Rome — Caswell Supply Co
Rome — Rome Agway Feed Store
Vernon Ctr — Vernon Milling Co Inc
Waterville — Louis Gale & Sons
Westdale — H.D. Rowell Estate
Yorkville — Clayville Equipment

ONONDAGA CO.
Apulia Station — Neal & Mowry
Batavia — Central Tractor Prts
Fabius — Fabius Hardware
Marcellus — Clifford Dorchesters Store
Marcellus — Nightengale Mill, Inc.
Skaneateles — Davey Farm Supply
Syracuse — N.J. Flynn
Syracuse — Reliable Farm Supply
Syracuse — Central Tractor Parts
Tully — Northrop Farm Supply

ONTARIO CO.
Canadaigua — Central Tractor Parts
Canadaigua — Joe Valvano's Dairy Supply
Geneva — Ack's Power Vacs
Geneva — Geneva Agway
Geneva — E.E. Miller & Son
Ionia — Bill's Shop
Naples — Naples Farm & Home Center

ORANGE CO
Middletown — Middletown Agway
Port Jervis — Montague Supply
Westown — Demberg Bros

ORLEANS CO
Clarendon — Wohlers Store
Medina — Daniel Bogden

OSWEGO CO
Fulton — Fulton Agway
Lacona — Lacona Agway
Mexico — Ontario Feed & Grain Co-Op
Pulaski — Agway Farm Store

[illegible] CO
Cherry Valley — Lipe Feed Co
Cooperstown — Agway, Inc
Edmeston — D.F. Yunk & Son
Gilbertsville — Musson, Faber & Teed
Mt. Vision — West-Nesbitt, Inc
Oneonta — Agway, Inc.
Oneonta — M.A. Groff
Oneonta — West-Nesbitt, Inc
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Potsdam — State Equip. Co

TOMPKINS CO.
Dryden — Ray L. Dedrick
Dryden — Dryden Agway
Groton — Groton Feed Co.
Ithaca — Ithaca Agway
Ithaca — Morse Collins, Inc.
Newfield — Tompkins County Farmers Union
Trumansburg — Trumansburg Agway

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WASHINGTON CO.
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Fort Edward — Nicholson Feed Service
Granville — E. Lee DeKalb
Granville — Granville Agway

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Lyons — Nusport
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Lyons — Tri County Feed
Marion — Marion Agway
Newark — Newark Tractor [illegible]
Walworth — Duell's Garden & Feed Store
Williamson — Williamson Fruit & Veg. Co-Op

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Arcade — Checkerboard
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Warsaw — Harold Schlitz
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Wyoming — Wyoming Farm Supply, Inc.

YATES CO.
Dundee — Charles L. Hargh
Yates — Penn Yan Farm Supply

SARATOGA CO.
Ballston — Ballsto Agway
Ballston — A.L. Pett[illegible]
Elnora — George T. Smit & Son
Galway — Clarence McChesney & Sons
Mechanicsville — Carr [illegible]
Saratoga Springs — Koval Farm & Garde Supply
Schuylerville — Schuyler Fe[illegible] Store

SCHENECTADY CO.
Schenectady — Tanner Fue & Feed
Scotia — Wayside Hardware & Gar[illegible] Ctr

SCHOHARIE CO.
Central Bridge — Beacon Feed Service
Cobleskill — Check-[illegible]
Cobleskill — Cobleskill Agway
Cobleskill — Schoharie Co Co Op Dairies
Cobleskill — West-Nes[illegible] Inc

Middleburgh — River Implement Co
North Blenheim — North Blenh[illegible] Ctr
Sharon Springs — Lipe [illegible]

SCHUYLER CO.
Odessa — Odess Agway
Watkins Glen — Donald R. Th[illegible]
Watkins Glen — Fiori[illegible] Dairy

SENECA CO.
Seneca Falls — Farmco, [illegible]

STEUBEN CO.
Addison — Addiso Agway
Arkport — Kilbury Feed [illegible]
Bath — [illegible] Agway
Bath — M.J. Wa[illegible] & Son
Canisteo — Steuben Farm Service
Cohocton — Hynes Feed [illegible]
Greenwood — Greenwood Agway
Hornell — Horne Agway
Prattsburg — Coomb Agway
Prattsburg — Peck's of Prattsb[illegible]

SULLIVAN CO.
Callicoon — Ag[illegible]ay, Inc
Cochecton — Cochecton Mills
Hankins — P.S.G. [illegible]schank
Narrowsburg — Narrowsburg Feed [illegible]

TIOGA CO
Barton — George [illegible]eman
Berkshire — Ward & [illegible] Scoy
Candor — Ward & Van Scoy
Newark Valley — Bliss Mills
Nichols — Nichol Agway
Nichols — Thetga Farm Supply
Owego — Arthur Hollenbec[illegible]
Owego — Owego Agway Farm Store
Owego — Ward & Van Scoy
Spencer — Spencer Co Op Society

PENNSYLVANIA

BERKS CO
Bally — Longacre Electrical Service
Bechtelsville — Montgomery Bucks Farm Bureau
Birdsboro — F.M. Brown Sons
Centerport — Schollenberger Farm Supply
Fleetwood — F.M. Brown's Sons (Br)
Kutztown — Beck's Feed & Grain
Leesport — Agway, Inc.
Leesport — Van-M[illegible] Feed
Oley — A.J. Noss Machinery

BRADFORD CO.
Athens — Athens Agway
Athens — Athens Equipment Co
Athens — Woods Farm Supply
Canton — H. Rockwell & Son
Canton — Wood Second Hand Store
Columbia Crossroads — Judd's Inc
[illegible] Smithfield — Kennedy's Farm Store
New Albany — Hugo Fer[illegible] Store
Smethport — Tann[illegible]
[illegible] Burlington — Austin L. Wallace
Wyalusing — Farm & Home Supply
Wyalusing — Wells Hill Co
Wysox — Vanderwoort Mill, Inc
Wysox — Wysox Agway

BUCKS [illegible]
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Dublin — Montgomery Bucks Farm Bureau
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CRAWFORD CO
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Conneautville — L.A. Glessner [illegible]
Linesville — Huffman's Farm [illegible]
Linesville — Palmer Feed Co
Saegertown — Erie-Crawford Dairy
Spartansburg — Pikits Mill

ERIE CO
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Edinboro — Wm. & Kelly Bar Equip
Edinboro — Sid Kuhn Farm Equip
Erie — Erie-Crawford Dairy Co-Op (Br)
Erie — R.R. Walker & Son
Fairview — Dick Brady Farm Tractor
Union City — Union Cit[illegible] Co-Op

LACKAWANNA CO
Clarks Summit — Agway, Inc.
Clarks Summit — Milwaukee Agway
La Plume — M.T. Osmun & Son
Moscow — Elmer Hennefrath
Moscow — Skelton's Farm Feed Supply

LUZERNE CO
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Sweet Valley — Russ Mayo Sales
Wilkes Barre — Luzerne Co Co Op Assn

MCKEAN
Kane — Peterson's Fertilizer

MONROE CO
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E. Stroudsburg — Ray Hartmann & Sons

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Norristown — Simpson Brothers
Palm — Lesher's Feed Mill
Souderton — Montgomery-Bucks Farm Bureau
Souderton — Moyer & Son

NORTHAMPTON CO
Bangor — Falcone Brothers
Bangor — Flory Milling
Bath — Phillips Feed Service
Bethlehem — Stanley L. Jones Jr
Easton — Franklin [illegible] Farm Supply
Nazareth — Kermit L. Nassler
Northampton — R.A. Smith Milling
Wind Gap — Arthur F. Miller

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Courdersport — Nelson's Sales & Service
Roulette — Close's Feed & Supply
Ulysses — Agway Inc
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SUSQUEHANNA CO
Clifford — William B. Lop[illegible]olsky
Great [illegible] — Heaths [illegible] Inc
Herrick Center — Mt. Pleasant Agway
Kingsley — Ross Brothers
Montrose — Andr[illegible] Son
Montrose — Flory Milling
New Milford — Agway Inc
New Milford — Vanderwo[illegible] Mills
[illegible] Montrose — Lotts Fe[illegible] Mill
Springville — Springville Agway
Thompson — E.A. Avery & Son
Thompson — Spencer Milling

TIOGA CO
Knoxville — Knoxville Agway Service
Liberty — Marshall Brothers
Liberty — Masse[illegible] Agway
Mansfield — Mansfield Agway
Middlebury — Cornell's Agway
Middlebury Ctr — Owlett & [illegible] Dairy
Nelson — H.R. [illegible]earn
Roaring Branch — Marshall Brothers
Wellsboro — Wellsboro Agway
Westfield — MacKnight's Agway

WARREN CO
Columbus — Columbus [illegible]illing

[illegible] CO.
Honesdale — Wayne Feed Supply Co
Honesdale — Honesdale [illegible]illing
Lake Ariel — Cobb Farm Supply
Lake Ariel — Cook Brothers Agway
Waymart — Waymart [illegible]illing

WYOMING CO
Laceyville — Vondervoi[illegible] Mills
Mehoopany — Kintner [illegible]illing
Meshoppen — Kintner [illegible]illing
Meshoppen — Meshoppen [illegible] Co
Nicholson — W.S. Crock[illegible] Sons
Tunkhannock — Hall [illegible]elden
Tunkhannock — Ace Sherwo[illegible] Inc
Tunkhannock — Gay Murray Co[illegible]pany

For The Northeast Farmer

APRIL 1973

American Agriculturist
and the
RURAL NEW YORKER



FORESTRY

National Champs—The survey of big trees in New York State has revealed that six are the largest of their kind in the nation. Species, and their **circumference** measurements, are:

Bigtooth aspen, 17′10″, owned by George Sawdey, Walker, Monroe County.

European larch, 9′5″, owned by Dear Hill Conference and Retreat Center, Wappingers Falls, Dutchess County.

Black locust, 20′3″, owned by William Waise, Slingerlands, Albany County.

American mountain ash, 7′11″, owned by Robert Fallon, Voorheesville, Albany County.

Tree-of-heaven, 19′8″, owned by Mrs. F. M. Bacon, III, St. James, Suffolk County.

Striped maple, 3′11″, owned by County of Nassau, Locust Valley.

As the survey continues, additional trees may be added to the list of national champions.

Maple Marketing—Advice on everything from sugar parties to pricing procedures is contained in a new booklet, "Modern Maple Marketing," issued by the Northeast Maple Marketing Task Force.

A year in the preparation, this report offers information usually not available to the average maple producer. Packaging, new maple products, marketing techniques and promotion . . . even the secret in making maple cotton candy . . . are included in the booklet.

To get a free copy, check with your county agent, or write to: Publications Office, Morrill Hall, University of Vermont, Burlington, Vermont 05401.

Save a Tree – There is real hope of curing elm trees infected with Dutch elm disease (DED). The hope is based on two new developments by Agricultural Research Service scientists: a pressure technique for injecting mature trees with chemicals, and a way to make the systemic fungicide benomyl more water-soluble.

With the new injection technique, the benomyl solution can be introduced directly into the tree, where it inhibits the fungus that causes DED, but doesn't damage the tree. There is also little, if any, chance for environmental contamination. It will take from two to four years to demonstrate the effectiveness of the new developments.

The novel injection technique ushers in a new era in the treatment of shade and ornamental tree diseases. Scientists may be able to tailor the size of urban trees with growth regulators, and feed soluble nutrients to trees whose roots are covered by asphalt and concrete. They may also be able to treat elm phloem necrosis, another serious elm disease not controlled by current methods.

Gypsies Again – Gypsy moth caterpillars defoliated an estimated 1,361,000 acres of woodland in nine northeastern states this past summer, reports the USDA. Connecticut was hardest hit with 513,900 acres defoliated (although part of this figure is attributed to the elm spanworm). There was heavy damage to about 404,000 acres in Pennsylvania; 226,100 in New Jersey; 170,000 in New York; 22,500 in Rhode Island; 20,500 in Massachusetts; 4,200 in Vermont; 200 in New Hampshire; and 40 in Maine.

Although fewer acres were defoliated than in 1971 (due to a combination of natural factors and to cooperative federal-state and private control treatments), the gypsy moth is as much of a problem as ever. The pest has begun to spread beyond the infested Northeast and is now invading other states with heavy acreages of valuable trees.

Plywood – A quick, single-page reference for selecting, treating and finishing plywood is a new bulletin entitled "Plywood Finishing for Farm Buildings." Along with guidelines for choosing and applying stains and paints, the bulletin offers plywood storage and handling tips. It also contains illustrations and current data on plywood grades and high-performance systems. For a free copy, write the American Plywood Association, 119 A Street, Tacoma, Washington 98401. Ask for Plywood Finishing for Farm Buildings, Form R120.



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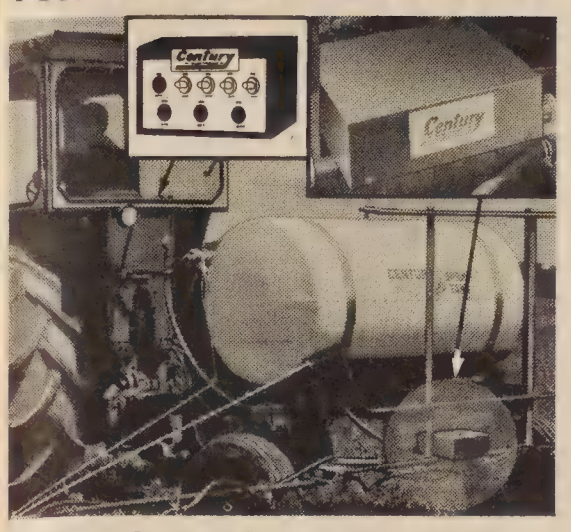
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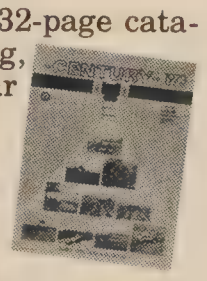


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and the
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OUR COVER

No more productive soils exist on earth than the mucklands of the Northeast. Potatoes are being planted at the Smith-Coulter Co. farm near Chittenango, New York . . . John Coulter is president of the company. Photo: Joseph Albino.

ABC
STATE FARM MAGAZINES
FIRST WITH FARM
APA

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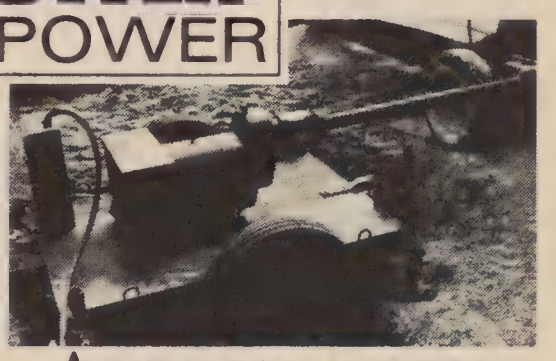
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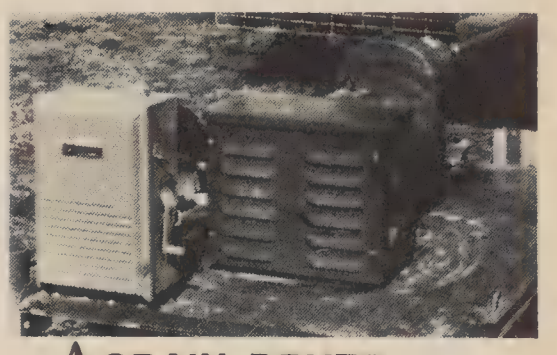
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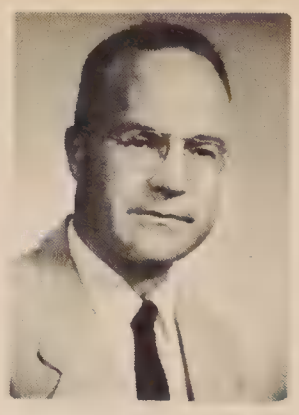
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EDITORIALS



by GORDON CONKLIN

BAITED HOOK

On center stage is an act that has been repeated many times before . . . government leaders exhorting farmers to increase production substantially, so food prices will fall to levels comfortable to non-farmers. Official steps are being taken to encourage overproduction of foodstuffs by rejiggering farm programs, and hopefully putting 40 million acres (once "rented" by the government to keep them idle) back into production in 1973. After all, the electorate has been spending **only 16 percent** of its income for food, and it is clamoring loud and bitterly now that this figure threatens to rise to 18 percent!

Martin Luther King once told of his dream . . . I, too, have a dream concerning a tiny minority in our society. It is a minority that has generally been toward the lower end of the earning scale because of chronic overproduction. Commercial farmers make up less than five percent of the population, but have enormous potential bargaining power because 100 percent of the people have to eat to survive.

Why, I ask myself, cannot farmers join forces in managing a slight . . . yet permanent . . . shortage of food? A shortfall of only five percent of food will generate price increases far greater . . . perhaps 15 to 30 percent.

Why, I wonder, must farmers accept meekly the price increases of trucks and tractors that will surely be imposed on them by the United Auto Workers? Why shouldn't non-farmers pay **25 percent** of their incomes for food, instead of having so much left over after a trip to the supermarket that they can buy all those snowmobiles, trips to Europe, and a jillion and one other non-essentials?

I have long since despaired of seeing the time when farmers and their organizations will band together into a really cohesive force to regulate production at levels somewhere below effective demand. Ironically, however, the environmentalists may yet provide a partial answer.

Gasoline supplies are tight . . . fertilizer will be a problem to obtain this spring . . . a host of problems beset growers in connection with the use of effective pesticides . . . regulatory authorities bug farmers on every side. All these things will inhibit the normal tendency of farmers to bury themselves in a sea of production.

Farmers, you can never sell legislators, government administrators, or other non-farmers on steps to increase the price of food so you can achieve higher incomes. If you were to form your own monolithic power structure that would force farmers to curtail production, the rest of society would probably nationalize farming in economic self-defense.

Bur surely nobody can be against improving the environment. If you can discipline yourself not to squawk too loudly about steps being taken to reduce agricultural efficiency, then perhaps you can reap the benefits of the resulting tightening of food supplies. **Society may accept higher food prices on behalf of environmental improvement . . . but never on behalf of higher farm incomes!**

It is in the best interests of farmers **not** to increase production . . . and my dream envisions some farmer-controlled organization that will someday enforce the tailoring of production to a level just **below** effective demand. For this year, though, I'd remind farmers that sharply increasing production is merely an exercise in digging your own economic grave.

American agriculture as a whole would be further ahead to plant **not one seed** on any of those 40 million acres federal authorities now hope will be instrumental in breaking food prices back to "acceptable" levels. Let's not bite the bait on the hook this time!

BANNED IN BOSTON

I note that Boston . . . where it once was fashionable to ban certain books to enhance their sales . . . has banned any reference in its public schools to any theme which would pertain to Christ's nativity. This includes carols that could resemble hymns.

This calls to mind a big flap that developed some time ago in the school system which my children attend. The movie "The Littlest Angel" was shown at Christmas time to the youngsters. Sure enough, a few parents charged that this violated the "rights" of their children . . . and the American Civil Liberties Union even threatened legal action.

Seems as though the parents felt their children might be brainwashed by such a movie . . . and that religious freedom involves the insulation of children from any reference in public places to the subject of religion. Violence on television, fine . . . but don't expose 'em to anything smacking of the spiritual!

It seems to me that this is carrying a good thing . . . the separation of church and state . . . a bit far. How come, I wonder, that public-school students can plumb such controversial topics as political systems and sexual customs . . . but religion is taboo? Is not information about the religions of the world . . . including Christianity . . . legitimate grist for the intellectual mills of young people?

Over the years, it has been my privilege to attend hundreds of public meetings across the land. I've noticed a subtle difference between those prefaced by an invocation and those that were not. Somehow, those meetings starting with some recognition of a Supreme Being beyond man seemed to me to have a bit more perspective . . . a more rational viewpoint, and less apt to be rancorous.

Many years ago, Ben Franklin got the squabbling delegates at a constitutional convention to hammer out their differences . . . after a sincere prayer had reoriented their perspective to goals beyond themselves. Our times are just as troubled . . . perhaps needing even more the constructive impact of the turning outward that is at the heart of prayer.

SQUEEZE OF THE SMALLS

A long list of agricultural crops are facing a very bad time in terms of insect, disease, and weed control. They are the ones labeled as "minor crops" by pesticide manufacturers . . . the term "specialty crops" is preferred by those more conscious of good public relations with the growers involved.

The specialty crops include such ones as strawberries, blueberries, brambles (raspberries, blackberries, etc.), horseradish, carrots, table beets, parsnips, Christmas trees, onions, spinach, melons, cabbage, pumpkins, parsley, squash, cucumbers, asparagus, and many more. Even with field crops, **seed production** of such things as crownvetch, potatoes, and birdsfoot trefoil comes under the specialty crop heading . . . because some pesticides are required for **producing seed** that would not normally be necessary for regular production.

Why are such things called minor crops by pesticide manufacturers? Simply because the acreage involved is not big enough to warrant the enormous developmental costs . . . and the fantastically involved (and expensive) procedures required to research a pesticide's formal label and thereby make it legal for a specific use.

For example, to the farmer **producing** strawberries, and to those of us who find strawberry shortcake to be equal to the ambrosia of the gods, this crop is one of the most important around. But pesticide companies wouldn't last very long if they shelled out millions of dollars for developing (and labeling) a pesticide which had a market potential far below the costs involved in the procedure. Instead, they might better concentrate on the big-acreage crops of corn, cotton, tobacco, rice, etc. . . . where the sales potential is sufficient to at least break even on a new pesticide.

The day is fast approaching when growers of these specialty crops will not have any **effective** pesticides that are legal for use on such crops . . . for the law requires that a pesticide be specifically labeled for specific crops. Thus, if a grower were to use a pesticide on carrots, for instance, that wasn't labeled for carrots, he'd technically be in violation of the law. Insecticides are notorious for losing effectiveness over the years as insect populations become resistant to a particular material, so what is effective today will be useless tomorrow.

Furthermore, government agencies at state and federal levels are sending out growing numbers of teams to check for pesticide-law infractions, and growers are increasingly likely to get caught if they use pesticides not officially approved for the crop in question. Malathion is an effective . . . and relatively safe . . . pesticide widely used against many pests, but woe to the grower found using it on a crop for which it's not labeled!

Growers of specialty crops have turned to colleges of agriculture for help in getting pesticides labeled for their small-acreage crops, but budget cuts have forced college administrators to hedge any promises of all-out help.

So specialty-crop growers are hemmed in on all sides . . . the pesticide companies find development and labeling costs prohibitive, colleges of agriculture are struggling to maintain programs instead of adding to them, and the government is primarily interested in playing big brother to see that farmers are committing no no-no's.

Be prepared, all consumers (this includes farmers), to pay **considerably more** for a tightening supply of these crops . . . and shift your mental gears to accept lower quality.

A GOOD BOOK

The publishers of the late Ed Eastman's book, "Journey to Day Before Yesterday," have informed us that the 14th printing of this great book is the last. Thus, no more copies will be printed in the future.

Many thousands of AMERICAN AGRICULTURIST readers have purchased and enjoyed this superb rendition of how generations past worked, lived, played. It's well illustrated, and written in Ed's inimitable style. Knowing of its appeal to so many of our readers, publisher Jim Hall arranged to obtain the remaining copies of Ed's most popular book.

To obtain one while the supply lasts, send check or money order for $7.50 (NYS tax included) payable to AMERICAN AGRICULTURIST . . . address is Dept. Book, Box 370, Ithaca, New York 14850.

Dates to Remember

Apr. 6-8 - Annual Franklin County Maple Festival, St. Albans, VT

Apr. 7-8 - Annual Central New York Maple Festival, Marathon, NY

Apr. 7-8 - Allegany-Steuben Maple Festival, Andover, NY

Apr. 11 - 15th Annual New England Dairy Feed Conference, Hotel Lenox, Boston, MA

Apr. 11-13 - Poultry and Egg Institute of America Fact Finding Conference, Rivergate Exposition Center, New Orleans, LA

Apr. 18 - 41st Annual Meeting, NYS Guernsey Breeders Cooperative, Sheraton Inn, Canandaigua, NY

Apr. 28 - Connecticut Holstein-Friesian Classic, Ratcliff-Hicks Arena, Storrs, CT

Apr. 28 - National Pony Sale, Farm Show Building, Harrisburg, PA

Apr. 28 - Planting of Preservation Orchard of Old Apple Varieties, Old Sturbridge Village, Sturbridge, MA

Apr. 28-29 - 8th Annual Schoharie County Maple Festival, Jefferson, NY

Apr. 30 - Mobile Home Show, Farm Show Building, Harrisburg, PA

May 5 - All-Betty and Empire State Spring Sale, sponsored by NYS Ayrshire Club, Fairgrounds, Cobleskill, NY

May 18 - Eastern Artificial Insemination Cooperative Spring Tour, Ithaca, NY

May 20 - Buck and Kid Show, sponsored by NYS Dairy Goat Breeders Association, Fairgrounds, Altamont, NY

June 10-13 - NEPPCO Egg Quality School, Quality Inn, Towson, MD (Exit 26 of Baltimore Beltway)

June 15-17 - 26th Annual Delmarva Chicken Festival and Chicken Cooking Contest, Civic Center, Salisbury, MD

June 16 - Opening of Northern New York Agricultural Historical Museum, Rt. 180, Stone Mills, NY

June 23 - World Livestock Auctioneer Championship Competition, Norfolk Livestock Market, Norfolk, NB

June 24-27 - International Apple Institute Annual Meeting, Park Place Motor Inn, Traverse City, MI

June 24-27 - American Farm Bureau Information Conference, Rochester, NY

July 15 - New York Ayrshire Club Annual Field Day, Marshall Cheeseman Farm, Ellenburg Depot, NY

July 16-17 - Eastern Regional Junior Angus Heifer Show and Judging Contest, Harrisonburg, VA

July 30-31 - NYS Maple Tour, Chenango County, NY

Aug. 3-4 - Craft Fair, Northern New York Agricultural Historical Museum, Rt. 180, Stone Mills, NY

Aug. 6-9 - 45th Annual National Institute on Cooperative Education, Tulane University, New Orleans, LA

Aug. 7-9 - Empire Farm Days, Cornell Research Farm, Dryden, NY

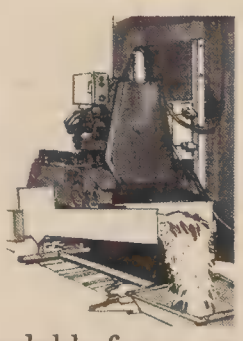
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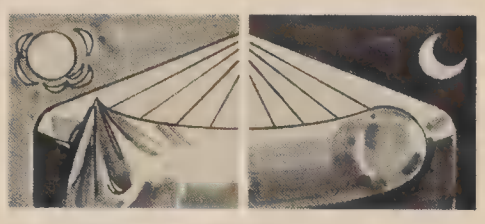
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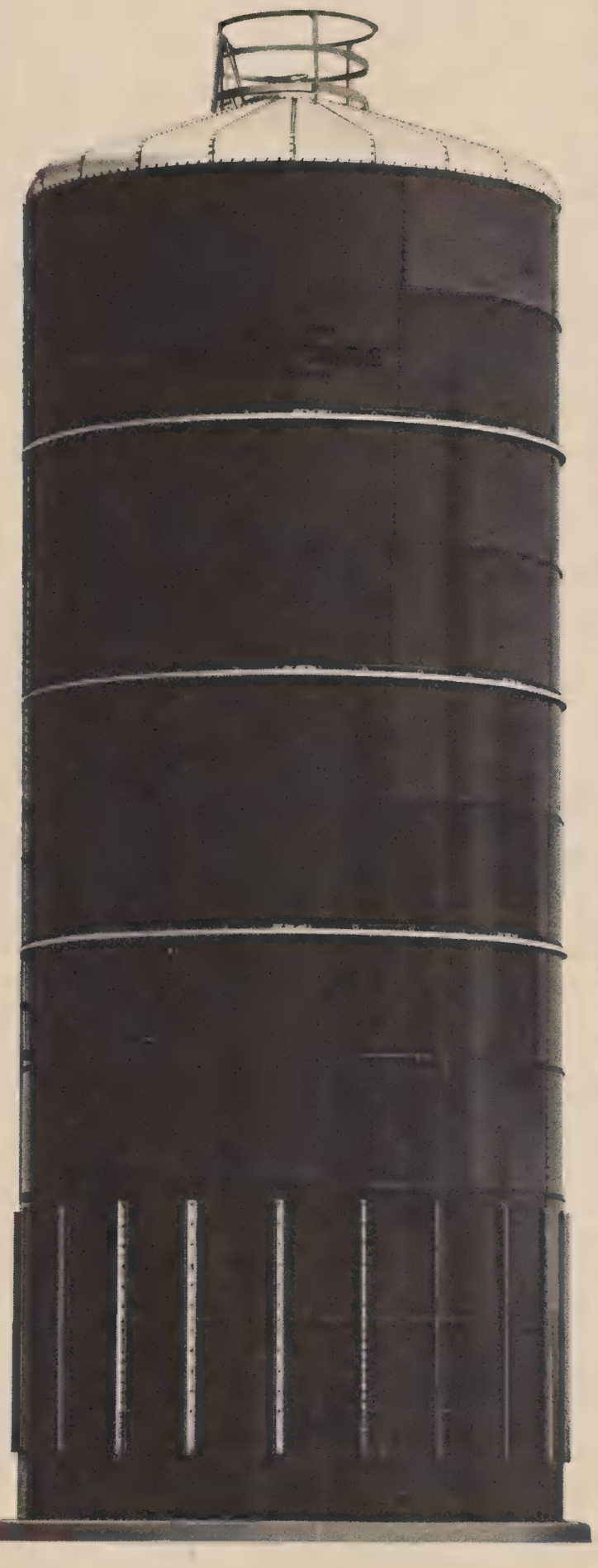


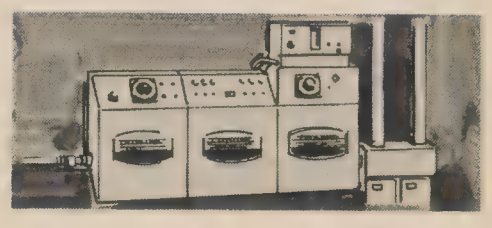
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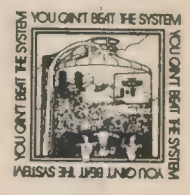




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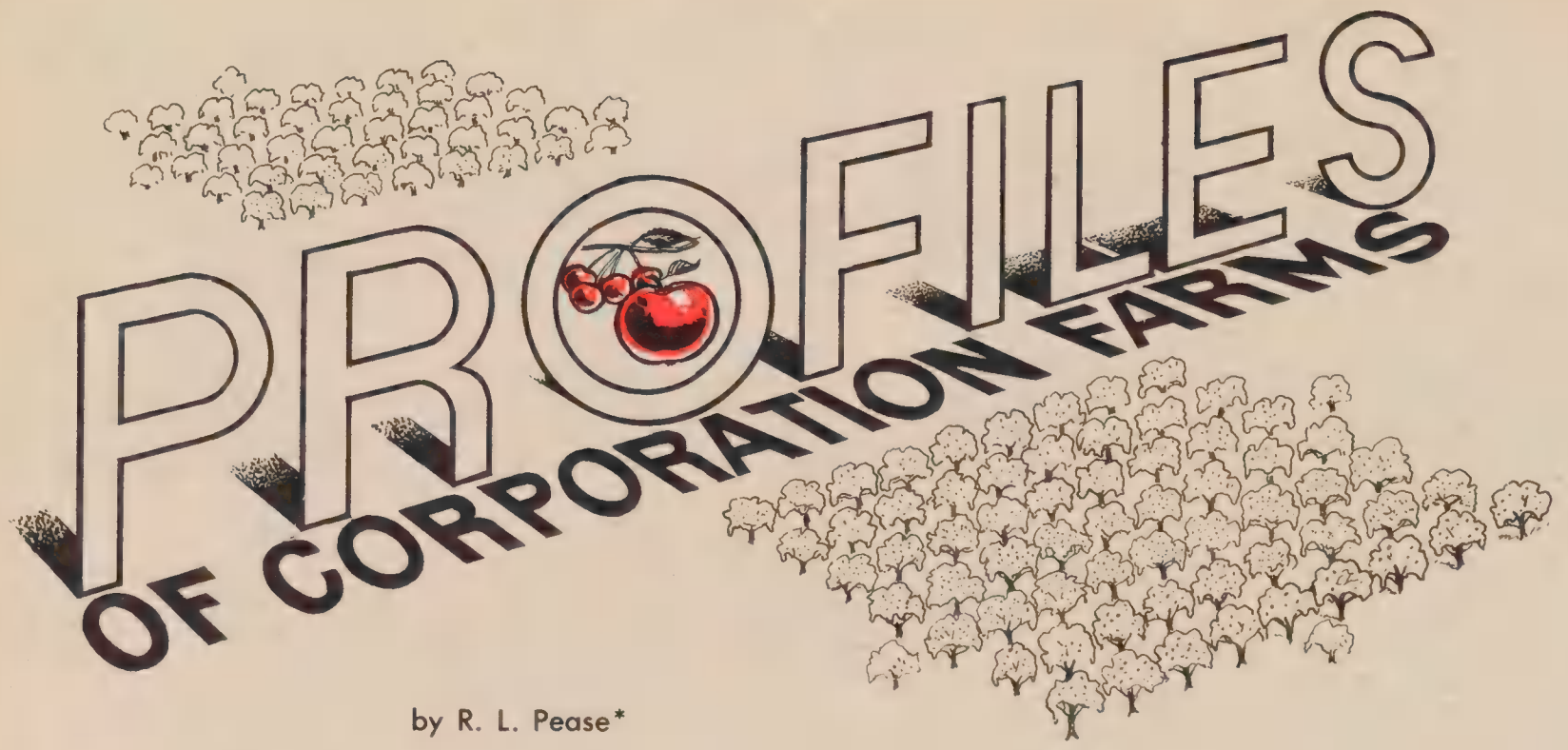
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by R. L. Pease*

WHAT are the features of a corporate farm that distinguish it from a "family" farm? Some of the images that corporate farms carry among other farmers are "big," "non-farmer owned," or "tax-dodge outfit." The general public may see farming corporations as profiting from federal farm subsidies, as being farming branches of huge conglomerates, creating tough competition that threatens the survival of traditional farms, or as oppressors of farm laborers. Although there is some basis for these generally unfavorable impressions, the facts indicate little cause for alarm.

A recent survey by the agricultural economics department at Cornell University indicates that the 538 corporate farms of all kinds in New York State make up a minority of 1.6 percent of the total farms in numbers, and only a slightly higher percentage of total farm acreage and production.

A Look

Let's take a careful look at four existing corporate farm businesses in New York to see what makes them tick. We shall try to better understand: LaMont Fruit Farm, Inc., Albion; Cornucopia Farms, Division of Gerber Products Co., Barker; Russell Farms, Inc., Appleton; and Orangeport Orchards, Inc., Gasport.

One of the outstanding family-held corporate farms in western New York is the 3,100-acre LaMont Fruit Farm in Orleans County. This operation dates back to 1815 in the LaMont family. A bronze plaque on "the maple out front" officially names it as a New York Century Farm.

During the thirties, grandfather George LaMont brought his son, Tom, into a partnership. Tom LaMont, holder of a PhD degree and a former professor of agricultural economics at Cornell, was instrumental in furthering the progress of the enterprise and became recognized as a farm leader in state and national farming organizations. Despite his untimely death in 1970, the continuity of the growing farm business was provided for in the corporate structure.

*Cooperative Extension Specialist, Lockport, New York.

As late as 1940, the enterprise was composed of the 315 acres put together by the merging of two farms in 1910. By 1950, the partnership had increased its holdings to 365 acres.

George and Roger LaMont (Tom's sons) returned to the farm after earning degrees at Cornell in 1958 and 1964, respectively. The business had increased to 480 acres by 1960 and reached 2,800 acres by 1970. Succeeding the original partnership, a new father-sons partnership existed from 1964-66 . . . the incorporation was completed in 1966. Corporate stock is now shared equally by the brothers.

The real estate investment stands currently at $1.2 million. Farm equipment is valued at $250,000 or 20 percent of the real estate. For a farm that invested in one of the first mechanical apple harvesters, and shaker-harvests nearly 100 acres of sweet and sour cherries, and mechanically picks 900 acres of snap beans, this is modest.

Analysis by the author of accounts from 16 typical western New York fruit operations indicates that machinery investment more typically averages 30 percent of real estate value.

Integration

Some corporate farms have been developed by downward integration . . . acquiring facilities back from the retailing end toward production. A Rochester food-retailing chain operates a poultry farm in Wayne County, while a few food processors own crop production units in many parts of the United States.

The reverse method of integration is involved with thousands of northeastern farms having investments in marketing cooperatives. This is true of the LaMont Fruit Farm in the case of sour cherries and snap beans.

About 30 cherry growers insure a market for their sour cherries through Albion Agway. The growers participate actively in both management and investment. Results have been very satisfactory. LaMont snap beans "have a home" through the farm's acreage-based investment in Pro-Fac. A cooperative fresh apple deal did not succeed.

Financing of both long-term and short-term credit is done through the Lake Ontario Production Credit and Federal Land Bank Associations.

A separate corporation managed by Roger LaMont is called Ridge Equipment, Inc., supplier of a well-known line of farm equipment to a three-county area. Naturally, most of the power units and tillage equipment used by LaMont Fruit Farm is of that make. As farm manager George LaMont says, "The success of each of the two separate corporations is related to the other." Prompt, skilled machine service is vital to profitable farm operations, and to high productivity of workers trained to operate farm equipment.

George LaMont takes justifiable pride in the food output of the farm and the productivity of the 10 full-time and about 20 seasonal workers employed. These 30 people, according to George's recent study, feed 4,000 other people (over 100 persons per man) . . . compared to the national estimate for all farms claiming only 40-50 people fed per farm worker.

A profit-sharing pension plan, started in 1968, has moved forward very slowly due to a three-year slump in fruit prices. Some young folks, usually well-supported financially by their families, claim that "profit is profane" . . . but northeastern fruit growers can testify that owners and employees alike suffer when profits are squeezed or absent.

Personnel Management

George studies the jobs to be done in each phase of the business, and tries to fit a person into that position. He and Roger have both attended Cooperative Extension schools on human relations, based on material from the School of Industrial and Labor Relations at Cornell. A recent addition to the farm's staff was Cornell agricultural graduate Richard Atwater.

A strategically-located trailer serves as headquarters. A full-time employee handles bookkeeping and communications there, including phone and two-way radio.

A major benefit of the incorporation, according to George LaMont, includes more flexibility in management of both physical operations and the finances to make it all possible. Employee benefits are written into the corporation's legal structure for both officers and employees. Few non-corporate farmers are able to specify their salary at the beginning of each year!

Exercise of flexibility in management is evidenced in the removal of 125 acres of old low-density apple orchards in the past two years. Three hundred acres of modern, higher-density orchards will begin to bear in 1973.

Better utilization of apples is now assured by the recent installation of a large cider press to supplement the existing 50,000-bushel controlled-atmosphere and 10,000-bushel common apple-pear storage. A new packing shed attached to the storage aids direct servicing of an apple-juice program with a key supermarket chain in western New York.

A cabbage storage now holds some of the production from 140 acres of cabbage for the "slaw" market. Sour cherry production should double as soon as the number of non-bearing trees equals bearing. Mechanization of harvest makes the increase possible, probably necessary.

Cornucopia Farms

Three years ago, Gerber Products, Inc. of Fremont, Michigan, became parent to a new offspring, Cornucopia Farms, Inc., in Niagara County. Another similar corporate birth occurred in Oklahoma in 1968 . . . consisting of 250 acres of peaches and apples produced primarily for Gerber's plant at Ft. Smith, Arkansas.

What is Gerber Products, Inc.? Most people think first of baby food, a correct assumption. The focus of the company is on serving the baby market with any service, anywhere. Its motto is still, "Babies are our business, our only business." This means divisions engaged in baby-clothing manufacture, child care centers, life insurance, vaporizers.

It has baby food processing plants in Rochester, New York; Niagara Falls, Canada; Ft. Smith, Arkansas; and in North Carolina. Other manufacturing plants are located in Mexico, Costa Rica, Venezuela. This is a small conglomerate (book value of stockholders equity is $123 million) focused on a more specific market than most multiproduct corporations.

How Come?

But why go into farming? Jay Dickinson, general manager of the Cornucopia Division, says, "It was natural for the baby food division to want a base of supplies of high-quality produce. The 1,100 acres in western New York can furnish up to 30 percent of the fruits needed for local plants. This still leaves 70 percent of the raw product needs to be contracted with independent growers."

Gerber has become the principal buyer of processing pears in western New York. The marketing office at Cornucopia Farms serves as agent in the purchase of apples, pears, peaches, prunes, and cherries for Gerber Baby Foods. They also deal in fresh market fruits.

Cornucopia Farms was fabricated from the former Ben Brown Lakeside Farm of 600 acres in Waterport, and another 500 acres formerly known as Pomona Fruit Farm, as

(Continued on page 8)

Jesse and Jerry Thompson won County honors for 1971 when their herd came through with a record of 16,568 pounds of milk and 628 pounds of fat.

"When Jim talks ideas, we listen . . . because we know he's really talking profits."

Jesse and Jerry Thompson, a father-and-son team, farm 165 acres in Huntingdon County, Pa. With just 80 tillable acres, they produce enough forage to support a milking herd of 80 holsteins.

They attribute much of their success to Jim O'Bryan, who is their Agway Dairy Enterprise Salesman. In Jesse's words:



Jim O'Bryan, Agway Dairy Enterprise Salesman, is a familiar sight on the Thompson farm.

"Working with Agway and listening to Jim has helped us go from 12,000 lbs. to 16,568 in the last four years . . . and from 450 to 628 lbs. of butterfat."

"Jim is probably the most important member of our management team," adds Jerry. "He has a great knack for coming in and evaluating what you have to work with . . . and then working with you to make the most of it. But I guess that's what Agway Dairy Enterprise is all about."

"For instance," explains Jesse, "to support our 80 cows, we used to rent 90 tillable acres in addition to our own 80. But with the new forage program Jim helped us work out, we don't need to rent anymore. So we are now milking the same 80 cows on half the acreage . . . 80 cows on 80 acres."

"What's Jim's biggest contribution to our operation?" asks Jerry. "I'd have to say it was getting us on the Agway Total Dairy Ration Program. But there are many other things . . . like crops management.

"One thing I do know is that we're now producing a lot more milk with a lot less labor on a lot less land."

If you'd like to strengthen your farm management team with someone like Jim O'Bryan, just call your Agway Dairy Enterprise Salesman. Any time. You'll find he has some good ideas which can mean profit for you.

Farm Enterprise Service AGWAY

Corporation . . . . .

(Continued from page 6)

well as smaller units joined together by Jay and Pete Dickinson a few years earlier. Apples account for 80 percent of fruit tonnage and three-fourths of the dollar volume at Cornucopia. Other crops include peaches, sour cherries, pears, prunes and sweet cherries.

Research

One of the functions of a farm division of a food processor is to carry out research on crops with potential for new sales opportunities. Cornucopia's farm manager, Clifford Heaton, is increasing plantings of blueberries in 1973 following a trial planting in 1972.

How many smaller fruit growers could afford to make a six-acre trial planting of apricots? These are growing on the shore of Lake Ontario at the Pomona unit of Cornucopia Farms. Research plans are coordinated between Gerber's and Cornucopia by Don Madeau, agricultural business manager at the headquarters in Fremont.

Meanwhile, over at the Barker office in the storage and packing division, Lon McAdam, storage manager and professional engineer, and Pete Dickinson, sales manager, are putting a new semi-automatic apple grader-bagger into use on fresh apples to be sold under the Cornucopia label. The 145,000-bushel storage building includes controlled atmosphere rooms for 45,000 bushels. Their interest in modernizing is underlined by the construction date (1913) of the existing facility . . . typical of fruit storages in western New York.

Even though Cornucopia is tied to a sales organization, Jay Dickinson feels they have very limited control over selling price. The major emphasis at the farm is to reduce production costs while increasing yields. Removal of 100 acres of "antiquated apples" has made way for plantings that account for 47 percent of total apple acreage.

A three-year-old "second generation" mechanical harvester is used to harvest sour cherries, prunes, and some apples. New crops or cropping systems adaptable to mechanical harvest get first consideration in planning for the future.

We see here an incorporated farm with a good marketing arrangement, located in a favorable climatic and geographical situation for fruit production and sales, "fair to middling" fruit soils, and above-average management. The business has suffered financially no less than smaller independent growers during the recent deflated price cycle and a devastating hail storm in 1971.

Since 1960, the Russell brothers, Charles, Duane and Pat, have held shares in a farm corporation with a "low profile" near Appleton, New York. There is no Russell Farms, Inc. painted on the barn or even one of those sharp plastic decals on the side of their pickup trucks. Another brother, Ray, is raw product manager for Gerber Baby Foods Division at nearby Rochester.

By previous and peaceful agreement, Charles "Chuck" Russell is president and general manager and owns the most stock. He is also township supervisor in Newfane. Duane is officially vice president, and in practice is active in general operations, often on a machine. Pat is in charge of maintenance and storage. Mrs. "Chuck" Russell serves as bookkeeper.

Field foreman Bertie Knowles now serves full-time as leader of harvest and pruning crews. He and his wife are bringing up seven children in one of the larger houses at Russell Farms after starting as migrant workers years ago.

This 600-acre farm emphasizes apples . . . including 100 acres in production, and another 100 acres newly planted in a moderate-density plan. There is an experimental half-acre of the latest pole-supported apples on E. Malling IX rootstock. These bear fruit in the second year and cost $2,200 per acre to plant and grow.

Tomato acreage has increased from 50 in 1965 to 75 acres in 1972 in the face of a declining tomato industry in New York during that period. There are several excellent reasons for this success. Fields are tile drained when needed, tomatoes are rotated with corn or dairy-feed crops to reduce disease, irrigated promptly as required, planted early and kept clean of weeds.

Yields run consistently around 30 tons per acre, 50 percent above state average. A hundred acres of corn for grain rounds out crop production. A few head of beef help feed the 31 people in four families that get their entire living from the farm.

Chuck values real estate at around $350,000 and machinery at $60,000. He will have more interest in forming an agricultural district if there is more urban pressure, and if some of the next generation shows a high level of interest and visible management ability.

Example

This larger-than-average family-held corporation farm is an excellent example of how a farm family can organize to take advantage of the incentives involved in ownership (that's the willingness to take a load of fruit to market on Saturday night) by using the tax and business benefits of incorporation. If that truck is involved in an accident enroute to market, liability is limited to the assets of the corporation . . . and a fringe benefit enjoyed by owner-employee (workmen's compensation) will help take care of the driver's injuries.

As past president of the Niagara-Orleans Production Credit Association, Chuck is a believer in farmers working together to take care of their individual needs, whether it be credit or marketing opportunity.

Orangeport Orchards

In 1961, Ruthvan "Bud" Kill of Lockport and Willis Mohlar from Gasport formed a partnership to consolidate their 281 acres into a larger, more efficient operation. These men are unrelated and have completely different personalities, but the common goal of making a

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1. Rebalance your feeding program. Agway Ratio:Right feeds have been carefully formulated to balance the feeding programs on Northeastern farms. When you are feeding the Agway Ratio:Right feed that's suitable for your farm, you can be sure your cows are getting the protein and energy they need to maintain top production. When cows go on pasture, however, the change in forage intake may change the amounts of protein and energy needed from grain. And if not adjusted, this could result in lost production. So, as the pasture season approaches, it is a good idea to review your feeding program with your Agway Dairy Enterprise Salesman. He will help you select that Agway Ratio:Right feed your cows will need when pasture replaces a portion, or all, of your forage. The proper Ratio:Right feed will help avoid that costly summer slump.

2. Put an Agway LPS feeder in your pasture. Although high in protein at the start, spring pasture deteriorates rapidly. And your cows will know it before you do. You will not be aware of it until milk production starts to suffer. Agway Liquid Protein Supplement (LPS) is good insurance against pasture slump. Agway research has proven that cows will *increase* LPS consumption when total-ration protein provided is below their needs. And they will *decrease* their consumption of LPS when protein is adequate.

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better living welded them into a business entity.

In 1963, another 120 acres were acquired and a corporation created. Investment of $200,000 in real estate and machinery in 1971 was only 25 percent greater than the 16 "average" fruit farms mentioned earlier.

Large size of business was not the reason for the formation of the corporation. In fact, it is difficult to get agricultural economists to name a figure at which point it is wise to incorporate. Equitable distribution of shares and proceeds may be a sufficient reason to incorporate when a partnership cannot be on a simple 50/50 basis. A cash settlement at the time of incorporation simplified share ownership from a 5/9-4/9 split to 50/50.

After "dozing out" 28 acres of old apple trees, Orangeport Orchards now has 100 acres of apples, 30 acres of pears and nearly 50 acres of bearing stone fruits. Sixty acres of non-bearing fruit indicate the owners' intentions to make full use of land and machinery, along with human resources.

Another innovation in the past two years is the introduction of pick-your-own sales to consumers. Annual sales of U-pick cherries and apples have reached five figures. There's a better net in this than in selling for processed. For some people, it beats buying more land and machinery to expand.

People are important at Orangeport Orchards. Will Mohlar is president and field manager. His wife, Eleanor, is vice president. Mr. Kill serves officially as secretary, and informally as accountant, labor manager and U-pick manager. Mrs. Kill is a director. A funded buy-sell agreement with life insurance is in effect to guarantee continuity.

Other people involved are John Harvey, assistant field manager; Tom Graham (Mohlar's son-in-law); and a part-time worker, Jack Schwens. Twenty harvest workers were once housed in a new labor camp. Presently, mechanical sour cherry and apple harvest, along with U-pick has reduced the harvest labor crew to seven, plus a few extras on weekends.

The owners of the Orangeport Orchards Corporation do not feel they can stand alone in the marketplace."Bud" Kill is past director and treasurer of the Western New York Apple Growers Association. Will Mohlar is a director of the American Agricultural Marketing Association, a Farm Bureau affiliate, and a member of the Niagara County Fruit Forum.

Wrap-up

Farm corporations tend to be a little larger than average farms. The owners are nearly always also active managers and have calluses on their hands. They completely wear out a pickup truck in about three years.

Incorporated farms generally have a better set of books because they have to. The "tax advantages" are over-rated. Employees of farm corporations often have a little better package of fringe benefits, including the salaried manager-stockholder. The overwhelming majority of corporate farms in the Northeast are family-held.

For the typical commercial farm in the Northeast, a partnership or single proprietorship may be more practical. An important point is to set up some formal business arrangement in writing before the sons are 40 and the parents "going on 80." Incorporation is another handy tool for some farm families . . . offering advantages in flexibility and business arrangements.



Monitor — The Zoecon Corporation of Palo Alto, California, has developed an insect monitoring system using sex attractants to bring insects into traps. It is not intended to be an insect-**control** system, but rather an aid in determining numbers of insects present, detecting "hot spots" of infestation within an orchard, to help pinpoint the best times for sprays to be applied.

U-Pick Hints — Looking for some ideas for your pick-your-own program? Here are some successful methods used by three Michigan farmers.

Phil Rumbold of Montrose sells his 10-acre strawberry crop by the pound. Instead of individual quart baskets at 25 cents each, he uses a single shallow cardboard box which holds 10-12 pounds of berries and replaces the usual 8 one-quart boxes in the standard carrier. Boxes cost about 10 cents each. His farm label is printed on the sides.

Oscar Dowd, a 75-acre blueberry producer in Paw Paw, harvests nearly 12 tons a day in peak season. He hires about 25 girls each summer to handle the cash registers and escort pickers to the most fully-loaded bushes. By encouraging customers to pick only the berries that look really good, he gets his ripest berries harvested and the less ripe are left on the bush.

Other Dowd ideas:

A restroom. He installed running water so customers can wash their hands after picking.

A pickers club. Each customer has a name card on file. After he's picked at the Dowd farm for five years, he gets a free 4 or 5-pound pail of blueberries.

A blueberry recipe exchange board in the market shed. Customers contribute or copy recipes.

Neat road signs, with **few** words in **large** letters. In classified advertising, a boxed-in ad costs a little more, but draws a lot more attention.

Russell Park's pick-your-own strawberry patch in South Lyon covers 16 acres. He uses a "supermarket" system with 15 checkout stations around the edges of the field. Customers waiting in line to check out can set their carriers on one of the two wide rails on either side of the station. Cost of materials for each station is about $35.

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The fast, low-cost way to control corn weeds or apply Nitan

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Agway's spray service is the ideal way to put down:

- Nitan on corn and grass
- Nitan plus herbicide on corn under the right conditions
- Herbicide on corn

You can count on Agway for specific recommendations that work—and for fast, economical application service. Ask your Agway Enterprise Salesman for full details.

For that all-important early boost...

AGWAY CORN STARTERS

Formulated for your specific needs

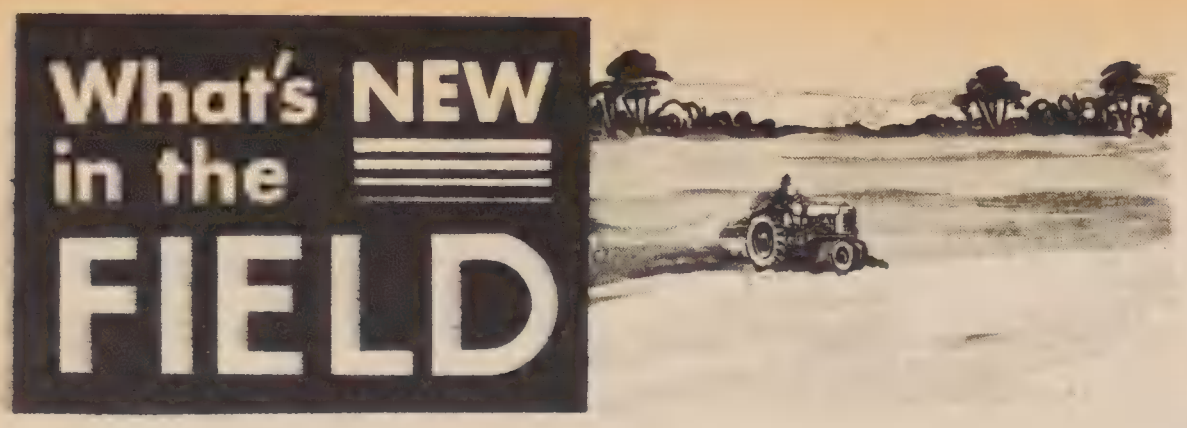
No matter what the soil and weather conditions in your area, no matter whether you've made heavy or light or no manure applications, there's an Agway Corn Starter to fit your needs.

And remember—each day of earlier planting can mean as much as a bushel more grain corn per acre at harvest. So be sure to plant early, and use an Agway Corn Starter for the fast start and uniform stands—even in cold soil—that corn must have to produce high yields.

In addition to starter nitrogen for early growth, all Agway Corn Starters provide these other important benefits for an early boost to high yields:

- 1.8% water-soluble magnesium for the plant's early needs
- 0.2% zinc to help guard against a possible deficiency in high pH and high phosphorus soils
- 0.05% boron, contributing much of the plant's needs for this element
- more than 60% water-soluble phosphorus for early root development under cold, wet, early-spring conditions

To achieve all the potential that's bred into your Agway hybrids, plan on putting down an Agway Corn Starter through your planter next spring. Check with your Agway Enterprise Salesman for details.



Check list for corn planting

GROWN right, corn can yield more feed than any other crop in the Northeast, and bring high returns for good management. But corn also costs more out-of-pocket dollars to grow than most feed crops, opening the potential for more unpaid bills if the crop comes up short.

That's why top corn growers emphasize the need for a high-yielding production package to maximize profit potential, whether they're growing silage or grain.

For your thinking, we've pulled together a check list of suggestions and information drawn from extension and ag-college research and from on-farm experience. We've tried to hit the key factors you'll need to make up your high-yield package and to note how these fit together.

☐ Choose "early" hybrids. Chances are you've already ordered seed, but if you've some left to buy, make it early for your location. Last year's disastrous fall merely stressed what we've noted before in this column, that we have more short falls than we'd like to believe, and long-term results in Northeast corn test programs show early hybrids averaging ahead of late corns in yield of quality silage or grain.

☐ Plant only "normal" cytoplasm seed. Check your seed as it arrives to be sure only "N" is delivered. Southern leaf blight is well spread over the Northeast. It's more likely to get you than not, if you plant susceptible "T" or "B" strains.

☐ Check for seed treatment, and add your own as needed. Your seed should go into the ground protected with a persistent insecticide and fungicide. Check the tags and labels on your bags closely and visit with your seedsmen about each lot and variety of seed. Companies differ in their practices and one may have applied only a fungicide while another may have added neither a fungicide nor insecticide.

Some of this will be due to difference in state laws. New York has the tightest pesticide law in the nation. This differs from federal laws recently passed and there'll be some ironing out of these differences over the next year. But for now, New York laws prohibit seedsmen from treating seed with persistent insecticides, so yours will come without. There may be a tag noting treatment by malathion or other non-persistent chemical put on to control seedhouse insects, but such chemicals are good for only a few days and are now long gone. You'll need to apply another to gain protection in the soil. Several compounds are available; lindane and diazinon are most common.

Most corn seed will come treated with a fungicide, but check to be sure. Several companies prefer to supply **both** fungicide and insecticide for planter box treatment, and sell the seed untreated. And if you have to add one, putting the two on together is no extra chore.

Generally planter box mixes will include an insecticide and graphite (to improve seed flow through planting equipment), a fungicide plus graphite, or all three. Nearly all compounds offered for sale are effective, if applied properly in the planter box.

Note that whatever the compound, these are poisons. They're in relatively safe forms, but still demand care in handling. Don't breathe in the dust or powder and use a stick, not your hands, to do the mixing.

Adding this stuff in the planter box is a pain when you're in a hurry. It's particularly irksome when the can is back at the barn and you're ready to plant. But skipping this step can be costly, as we've found in checking trouble calls during the past several years. Seed corn maggots are well spread in Northeast fields and have no respect for good intentions.

Seed treatment is important anytime but it's an absolute must with early planting.

Corn Root Worms

☐ Corn root worms have been spreading in the Northeast and can now cause lodging and lower yields in most parts of the region. If they're active in your area, and you're growing corn after corn, you should definitely plan controls. A number of chemicals are available that carry extension recommendations, including Furadan, Di-syston, Dasanit, Dyfonate, Thimet and Bux. All go on at planting time, in a band over the row, usually applied ahead of the press wheel through a special insecticide applicator on the planter. All come as granules. All are also "hot" chemicals and can get you as well as the bugs.

☐ Early planting is a practice that pays off most years. Few of us will forget last spring's rains that held up planting, in some places far into June. Nor will we forget the poor yields that followed. In fact, some of this corn is still in the field, due to high moisture (both in the

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Regional dairymen announce 4 to 5 tons of alfalfa per acre ...the first seeding year!

Agway's Alfalfa Management Program is the answer. It's based on clear seeding and is keyed to alfalfa yields of two to four tons in the seeding year with goals of up to seven or more tons in the second year.

But many dairymen have reported yields of over five tons in the first year!

The benefits of direct seeding are, of course, more total crude protein, at lower cost, and in the shortest possible time. Read how Agway's direct seeding recommendations turned out for three Northeastern dairymen. Then ask your Agway Enterprise Crops Salesman to explain how the program can work for you—on your farm.



5.15 tons the first year is what Roy L. Miller of Cumberland County, Pa. achieved. He runs a herd of 48 holsteins and currently keeps 75 acres in alfalfa. On Agway's recommendation, he clear-seeded 40 acres in 1971. During the same year, those 40 acres yielded 5.15 tons per acre. In 1972, they yielded 6.5 tons per acre.



The Shephard Brothers of Madison County, N. Y. boast a herd average of 16,202 pounds of milk and 602 pounds of butterfat. In 1971, they clear-seeded 15 acres of alfalfa—again following the Agway program. They harvested 4 tons per acre during the seeding year and 6 to 7 tons per acre the next year.



Willard M. Martin, Jr. runs a herd of 80 holsteins in Oneida County, N. Y. In 1971, following Agway's Alfalfa Management Program, he clear-seeded 14 acres. His yield that first year was 5 tons per acre. The following year—in spite of Hurricane Agnes—his yield was still 4.5 tons per acre.

grain and in the ground) at harvest time.

These factors emphasize the long-term odds favoring early planting. Experiment station results suggest you'll lose about a bushel per acre for every day you must delay planting. Late planting also delays maturity, increasing the risk of harvest and storage problems as we saw so vividly last year.

How early is "early" for corn planting? This depends on where you are, and how well your soil drains and how fast it warms up. If you're crowding the season and wonder if you're too early, check your soil temperature with a simple soil thermometer. Corn seeds can begin germinating if the soil is 50 degrees at a three-inch depth. After May 1, though, soil temperature is less important, since warmer days are sure to follow. Before May 1, rely on soil temperature, but after that date, go ahead and plant. Even if the soil is still chilly, it should warm soon enough to get your seed up.

Plant shallow if you're planting early in a cold soil. The soil in the top inch will be warmer than three inches down, so you'll get faster emergence with less risk of seed rot.

Population

☐ Your best population per acre depends on whether you're growing silage or grain, your soil type, your planting date and hybrid you've chosen.

For most Northeast soils, a harvest population of 22,000 to 24,000 plants per acre will bring the most profitable yields. With your best corn soils, you may shoot for 24,000 plants for grain, and up to 28,000 plants per acre for silage. There's no point in going higher. Some years you may get a bit more green tonnage, but you'll nearly always sacrifice dry matter and grain at populations higher than these.

If your soil is sandy or tends to be droughty, cut back on the above rates. Shoot for a harvest population of about 20,000 for grain, and 22,000-24,000 for silage.

Note that these are **harvest** populations. All seeds won't germinate, and those that germinate won't all make mature plants. So plan to overplant by about 10 percent, roughly 24,000 seeds per acre to get 22,000, and about 26,400 seeds to get 24,000 plants per acre.

If you're planting real early in a cold soil, you'll lose a few more seeds, and you should plant 5 percent more seed, say 25,000 for 22,000 plants per acre, and 27,600 for 24,000.

Hybrid choice is also important in close planting. If you're crowding plants, pick hybrids with above-average standability ratings. Check extension trials and dealer recommendations for the best standing hybrids. If you like certain hybrids for other reasons that don't stand particularly well, cut back 2,000 to 4,000 plants per acre in population as a hedge against unnecessary lodging.

☐ Row widths come in for lots of talk, but they're less important than most other factors, as long as your population is adequate. If you're planting in 30 to 36-inch rows, you'll not gain much from going narrower. You'll occasionally read testimonials to 20-inch rows, but test results rarely show these any higher in yield than 30's. Forty inches is a bit broad, though, and if you're planting this wide you may consider narrowing a bit.

Note that several long-term tests have shown about five percent more yield for narrowing from 40 to 30 inches. That's fine, but you're only likely to get three-fifths (or three percent) for dropping from 36 to 30. This may be worthwhile if you're getting new machinery anyway, but it's not worth taking any appreciable loss on trading equipment. And a two-inch change, say from 36 to 34 or 32 to 30, won't give you enough yield difference to notice.

Planters

☐ Corn planter selection is getting complicated with two plateless planter types now on the market. In our experience both work well. Dealers report strong demand from farmers for plateless planters. Like any other new machine, it takes a bit of experience to learn to keep them operating at top efficiency. Have your dealer fill you in on good operation and maintenance procedures.

☐ "No-plow" planters of various types are also on the market. We've tried several makes with good results, but had to do a bit of tinkering with one or two to get them to do the job we wanted. If you're considering a no-plow planter, select one that plants well in a conventionally-tilled corn field, as well as in unplowed sod or stalks. And we'd suggest talking to someone who has operated the kind you're interested in buying. This could be a neighbor or someone in the next county, so long as he's had some practical experience with a machine like yours. Depth of planting and amount of seed coverage are both tricky and need careful adjustment depending on the condition of the soil.

Fertilizer

☐ Nitrogen fertilizer is a must for good corn growth, but don't use more than you need. Excess nitrogen in lakes, ponds and streams is attracting ecological headlines and will continue to do so. And rightly or wrongly, the accusing finger continues to point to agriculture.

Excess nitrogen not used by your plants can be washed off into streams or leach down in the ground water and hence into wells and other supplies. Several state legislatures in the midwest and east have considered bills putting limits on the amounts of nitrogen farmers can apply. None of these bills have passed yet, but that doesn't mean they won't someday. Applying too much nitrogen can provide ammunition for those who would pass such bills.

Over-use of nitrogen is also poor business. Research from Cornell shows that you can still fertilize for maximum profit (though not necessarily for maximum yield) without suffering excessive nitrogen loss.

Extension recommendations from

(Continued on page 12)

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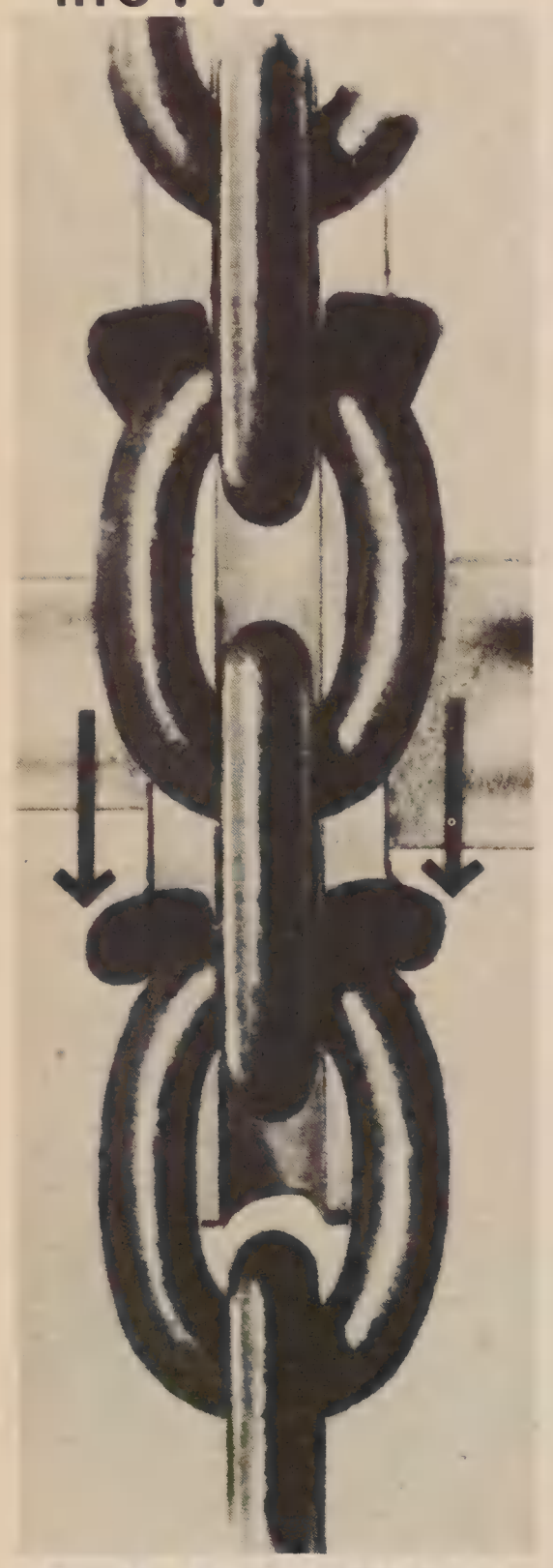
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Planting . . . . .

(Continued from page 11)

Northeast states allow for profit but stop short when a dollar's worth of nitrogen returns less than a dollar's worth of yield.

In planning your nitrogen program be sure to figure in the nitrogen you'll be getting from your soil, from manure, from plowed-down legumes and other crop residues. These all supply nitrogen, sometimes substantial amounts, and they release this just when your corn plants need it most.

Dr. Shaw Reid, Cornell soil fertility specialist, notes that you'll get 60 to 80 pounds of nitrogen just from breakdown of organic material already in the soil. A good legume-grass sod plowed down will supply another 100 to 150 pounds of nitrogen per acre, while a good grass sod plowed down can supply 80-100 pounds.

Manure also helps, as any dairyman knows, providing 5-10 pounds of nitrogen per ton of manure. Most manured fields get 10-20 tons per acre (some far higher), so you can figure 50 to 100 pounds of N from your manure.

You can ignore these sources, but you do so at your own expense. They all break down and release nitrates into the soil, and corn plants can't tell these from the nitrates you buy in the bag, truck or tank.

In computing how much commercial nitrogen you'll want to add, consider when and how you'll apply this fertilizer. If you plow nitrogen down, you risk heavy losses, so you should put on enough more to allow for this. Some nitrogen through the planter helps plants get off to a fast start, but too much can burn crop roots.

Sidedressed nitrogen has proven most profitable in Cornell trials, and it looks good in other states as well. This way, you put the nitrogen on or into the soil when the corn is six to 15 inches tall, just ahead of its most rapid growth and strongest need. You'll get less loss and so can use lower rates, saving on both dollars and pollution potential.

Sidedressing equipment is available for hire or sale over most of the Northeast. However, you may have to hunt a bit in a few areas where sidedressing hasn't taken hold yet. Such equipment is worth looking for since year-in year-out sidedressing will give you the best return for your nitrogen dollar. Certainly this was emphasized last year when heavy June rains leached out nearly all previously applied nitrogen and only those who sidedressed got nitrogen to their crop. Where ground equipment isn't available, or where fields are too wet, air application can do the job.

Other Musts

☐ Phosphorus is another must for corn in the Northeast, and the corn plant needs it while it's young. Best time and place for your phosphorus is at planting time, right near the seed, so planter application is usually most convenient.

☐ Potassium is another "must" nutrient for corn. Potassium can go on anytime, since it's less soluble than nitrogen. Through the planter is okay, or it can be put on in the fall or spring and plowed down.

☐ A "starter" application through the planter is a good way to put on phosphorus, along with some nitrogen and potassium to get your crop off to a fast start. Often you can put on all your phosphorus and potassium here, along with a small shot of nitrogen, then come on later to sidedress the rest.

Take care, though, not to put too much nitrogen and potassium through the planter. Both come as salts, and even placed two inches to the side they can cause salt burning of seedling roots if you put on over 80 pounds per acre of nitrogen plus potassium. Some years you can get by with higher rates, if you have good rainfall. But get some dry weather after planting and you can get burning if you're above 80 pounds of salt.

☐ Soil testing isn't new, but it's still your best indicator of plant food needs. Soil test labs are busy this time of year, so the sooner you get your samples in, the better.

Weeds

☐ Weed control is another must and one you'll need to fit to your specific situation. Most northeastern corn fields have received atrazine sprays for several years, and this has given good control of most broad-leaved weeds and many grasses. Trouble is we have now cleaned these out in many fields, and with no cultivation, we're having atrazine-resistant weeds come in strong.

Annual grasses, including crabgrass, the foxtails, witchgrass and fall panicum are increasing in many fields. Atrazine won't faze these, but a mixture of two to two-and-a-half pounds of Lasso plus one pound of atrazine will generally do a good job if applied before the corn is up or just after, before the weeds are one-and-a-half inches tall.

Sutan and atrazine disced in ahead of planting can also catch these annuals, as can a mix of one pound each of atrazine plus simazine. This latter must go on before the corn emerges and may be less effective in dry years. Still it has looked good for all-season control.

Best time to get weeds is real early, with a spray before they and the corn come up. But if weather keeps you out of the field, you can come in with atrazine at two pounds per acre postemergence. Add Booster Plus at one quart per 15 gallons of spray to improve herbicide contact with weed leaves. This may not control fall panicum or crabgrass. And you can get rained out here too. Best bet is to get your herbicide before the corn is up, and save postemergence sprays for emergencies.

Nutsedge can be serious and Sutan disced in is the answer if you anticipate nutsedge problems. See last month's column for a full rundown on nutsedge control in corn and elsewhere.

Cultivation, where feasible, is also a darn good weed control practice to supplement your herbicides. One good cultivation can set back those problem weeds that get through our present herbicides and keep them from building up. And the aeration provided through cultivation can boost yields by itself on many soils, particularly those that tend to be heavy.



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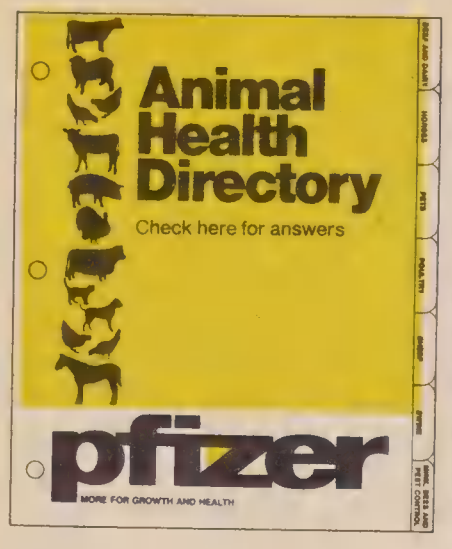
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Doc Mettler comments on:

Treating the slaughter cow

WATCHING a once good dairy cow walk up the loading ramp on the truck can give a man a lump in his throat, even if he does claim to consider dairy farming just another business, and each cow just a working unit in the production-for-profit scheme.

A man who has raised a calf from the day it was dropped, watched her develop into a beautiful heifer, fed her and milked her twice a day for years and cared for her when she was sick, finds it difficult not to have some feeling of letting a good friend down when he sees her take that last walk. In fact, if he does not have that feeling about a cow once in a while he probably should not be in the dairy business, because the dairyman who does not enjoy working with cows never seems to make much production or profit.

Some of the cows that are sold for beef are old, milked out and not bred back. Too many, however, are young cows who have become incapable of profitable production because of disease, and statistics show that of the diseases causing disposal, mastitis is the largest contributor. Despite the good beef price, it costs as much as ever in proportion to replace a dairy cow and few are beefed without at least an attempt to clear them up.

Antibiotics

Years ago, veterinarians and dairymen were convinced that we could not ship milk from cows that were passing antibiotics in their milk. There is certainly good reason for this, and few dairymen disagree with the policy or find it too difficult to keep out milk containing antibiotics. Now, however, we are faced with the same problem in using antibiotics on cows that are going for beef.

I cannot conceive of how antibiotics in meat can be anywhere near the danger they are in milk, but regulations are regulations, and if the federal government decides to make a ruling, it will be enforced whether a few veterinarians and dairy farmers agree with it or not.

As one who has the opportunity to reach many dairymen through the the pages of AMERICAN AGRICULTURIST, all I can say is that you and I must observe the label on the medicine we use on meat-producing animals if we are to stay in business. The penalty for disregarding these regulations will not be just a fine for an individual, but a problem for **everyone** in the dairy and meat business.

One threat is to take all antibiotics off the market. Another is that every cow that goes to slaughter with anti or postmortem symptoms of mastitis will be held until proved negative as a suspect. This would automatically mean boning out every such suspect and holding the meat frozen for 30 days while tests are made. You know who is going to lose on this arrangement!

So, what are we going to do about this situation? First, we must read the precautions about every drug we use on our cattle. Streptomycin has the longest hold-out period; some labels say 30 days, but newer ones will say 60. Other injectables will read five to ten days. If you infuse a quarter, do not ship the cow for beef before the time limit on using the milk is reached, and if you infuse a dry cow she'd better not be shipped until she freshens.

This all sounds harsh, but with the help of your local veterinarian, you can make up your mind which cows are to be shipped and which treated. The old standard where we said, "Well, it won't cost much to treat her, and if she doesn't make it she can go to the beef auction next week," cannot be used any more.

Most important, **get out of the habit of giving every sick cow a shot of penicillin-streptomycin as routine before you can call your veterinarian or consider what is truthfully wrong with her. The continuation of that bad habit automatically means she cannot legally go to slaughter for 60 days.**

The one thing your veterinarian furnishes that you cannot buy for any price anywhere else is diagnosis. With today's beef price, and the regulations on shipping cows, a misjudgment on your part can be a $400 mistake. I don't mean that your veterinarian is going to be right every time, and I agree that it puts a terrific responsibility on his shoulders. However, if you call early he can usually help you make a decision and at least he will have antibiotics or other drugs that are not retained in the meat as long as streptomycin.

Let's consider a specific example of the problem. You are on the last cow at evening milking and you realize she has a hot, hard left rear quarter. What do you ordinarily do? All too often, dairymen will only make a mental note of this sort of cow and wait until morning with the

thought that he can check her better then.

Another decision almost as bad, which should now never be done, is to give her an intramuscular injection of penicillin-streptomycin and infuse the quarter. In either case, by the next morning the cow could be better or she could be nearly dead, depending on the causative organism of the mastitis.

Never let a cow with a swollen quarter go through a milking without checking her temperature. If she is running a fever, phone your veterinarian immediately. He can treat her with drugs that won't last as long in the tissue as streptomycin, and by getting her early with letdown hormone (oxytocin) and powerful drugs, you have a good chance of saving her.

Shipping

You and your veterinarian may decide she is not worth treating, but to be technically correct, a cow running a fever should not go to slaughter. You may decide to use the oxytocin, milk her out, bathe the quarter in ice water and repeat. This might drop the fever so at least she can be shipped.

Remember, however, if she has been treated she cannot legally go to slaughter for at least several days, or if you used the streptomycin she cannot go for 60 days. In most early cases of a swollen quarter, if a cow is eating and not running a fever, a simple infusion is safe. If you do even this, however, she cannot be shipped for beef for at least three days.

In a later article, I would like to talk more about mastitis, but I cannot leave unsaid the fact that if a dairyman misses or ignores a swollen quarter with fever, or simply infuses the quarter, chances of his veterinarian saving her 12 hours later are lessened by at least five times. After 24 hours, saving her is going to be next to impossible.

Reading over the above makes me think that though I am not one to wish for the good old days, things were easier and more fun a few years ago. I can just hear my old friend Charlie, who used to tease by saying, "I know what is wrong with her, Doc, but you got a license to kill her." Now it will be, "You make just as many mistakes as I do, Doc, but I'd rather have my wife mad at you than me for losing a $400 cow."

Seriously, you and your veterinarian made tough decisions before, and he (or she) can help you now. If you have been sort of going it on your own without much but emergency work done by your veterinarian, now might be a good and profitable time to change.



"I THINK HE'S SPOTTED SOMETHING!"

LIVESTOCK



300-Year Itch — Secretary of Agriculture Earl Butz has declared the U.S. free of sheep scabies. The declaration caps a 73-year effort by state and federal governments and the sheep industry to first control, then eradicate, the tiny mites which have caused losses to North American sheepmen for over three centuries. Eradication of the mites will save the industry an estimated $17 million annually.

The last case of sheep scabies was reported in Gloucester County, New Jersey in January, 1970. After three years of intensive search with no sheep scabies found, USDA officials say that the nation's four-legged wool factories can forget about their 300-year itch.

VEE and EIA — Your horse will not be allowed on local or state fairgrounds during 1973 fairs in New York State unless he has been vaccinated against Venezuelan equine encephalomyelitis, and tests negative to an immunodiffusion test for equine infectious anemia. The same applies to harness horses on the county fair circuit.

The New York State Department of Agriculture and Markets recommends vaccination against VEE **every four years,** and against Eastern and Western encephalitis **every spring** before the fly and mosquito season begins.

The necessary papers to register your horse for a fair are available from your county extension agent, or from the Department of Agriculture, Division of Animal Industry, Albany, New York 12226.

Charolais — The U.S. Charolais herd is heading toward the one million mark, reports J. Scott Henderson, executive secretary of the American-International Charolais Association (AICA). Eleven percent more purebred Charolais registration certificates were issued in 1972 than in 1971, and more than 250,000 Charolais purebred cattle are now registered with the AICA.

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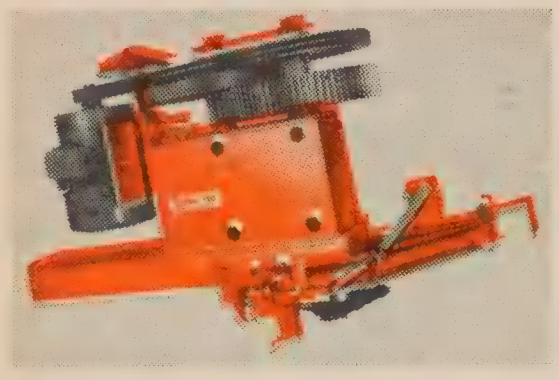
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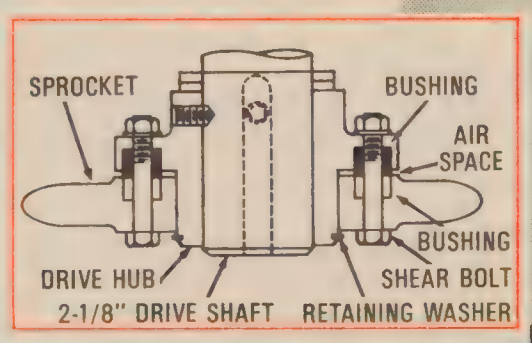
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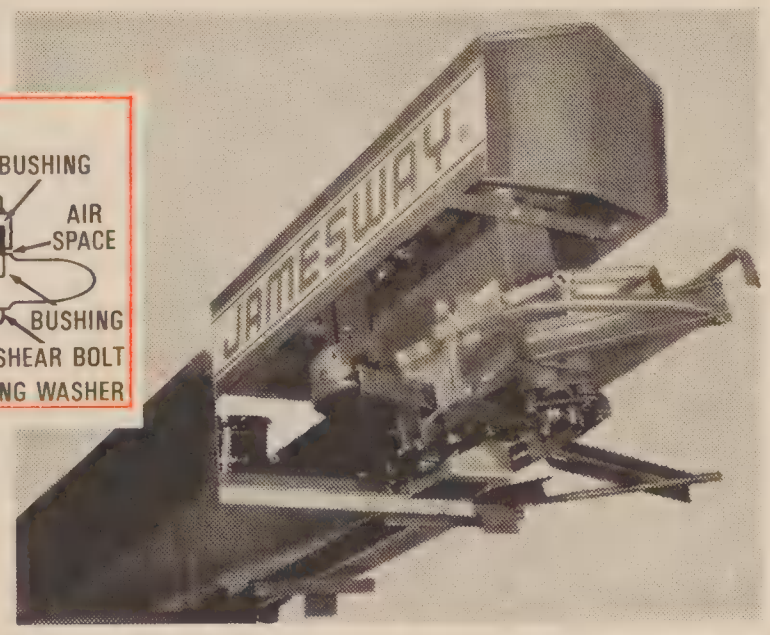
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Food For The Spirit



by Robert L. Clingan

If a visitor from another galaxy could visit our planet, and somehow communicate with us, he might ask us to describe the life of man upon the earth at this point in our history. Among the many things we might say, are two words we would almost invariably find ourselves using. These words are "pluralism" and "polarity."

We live in a time of varied life styles, varied value systems, varied points of view about almost anything. Even though we rub elbows with people so different from ourselves, we remain poles apart. Pluralism and polarity are marks of our time.

Reduced

The pluralism cannot be easily changed, but perhaps the polarity can be reduced . . . if each of us seeks to understand the other, if we cease being arrogant about the rightness of our own particular position and way of life.

Somehow, we are locked out of each others' lives because we are so completely locked up in our own. As an eminent psychiatrist once pointed out, this insularity and self-centeredness may even be an indication of poor mental health. He said, "If I could cut the words I, me and mine out of the vocabulary of all the patients in my sanitarium, ninety percent of them could go home tomorrow."

It is to this kind of extrovertive Christian living that Jesus calls us. The strong are to help the weak. The Lord's Prayer has only plural pronouns. Before a man places his gift to God on the altar, he is to make peace with his brother who is holding something against him.

Commandment

In the Gospel of John, Jesus says to His disciples, whom He is about to leave, "Love one another," and "If you abide in My commands, you will dwell in My love." The apostle Paul declared that bread cast upon the water will return to nourish him who gave it to feed another.

There is an ancient story of a man who had a strange dream. He entered a room where food adorned a table, yet everyone lacked nourishment. He asked them why they did not eat. They replied, "Haven't you noticed that our elbows are stiff and our spoon handles are short? How can we feed ourselves?"

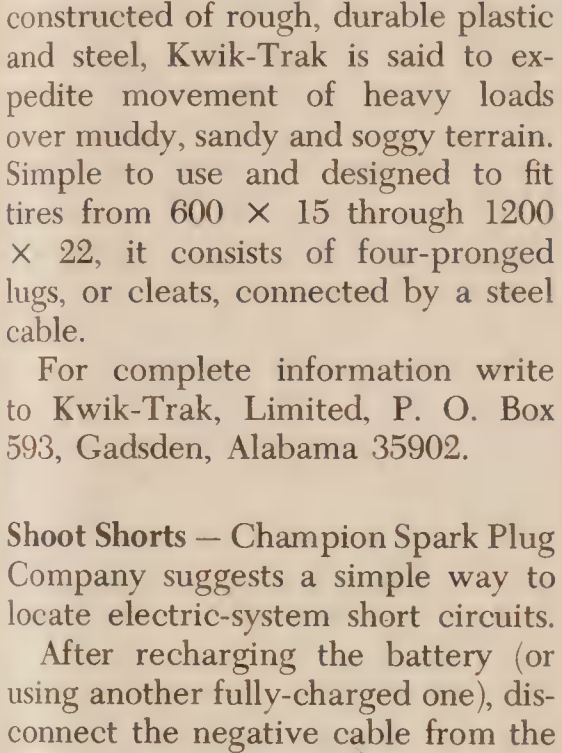
He then climbed the stairs to another room. Here the people were well fed. Their plates were empty and their stomachs were full. Yet as he walked around the room he saw that their elbows were also stiff, and the tables were also adorned with short-handled spoons.

"How did you eat?" he asked. "We learned long ago," they replied, "that the only way we could keep from starving to death was to feed each other."

This is a lesson for our life and time.

American Agriculturist, April, 1973

EQUIPMENT



No Stick-in-the-Mud — An easy roll-on, roll-off wheel-traction device designed especially for use with dual-tire-equipped trucks and truck tractors has been developed by Kwik-Trak, Limited of Gadsden, Alabama. A rugged, chain-like unit constructed of rough, durable plastic and steel, Kwik-Trak is said to expedite movement of heavy loads over muddy, sandy and soggy terrain. Simple to use and designed to fit tires from 600 × 15 through 1200 × 22, it consists of four-pronged lugs, or cleats, connected by a steel cable.

For complete information write to Kwik-Trak, Limited, P. O. Box 593, Gadsden, Alabama 35902.

Shoot Shorts — Champion Spark Plug Company suggests a simple way to locate electric-system short circuits.

After recharging the battery (or using another fully-charged one), disconnect the negative cable from the battery. Connect a 12-volt test lamp between the negative battery post and the disconnected cable.

If there is a short, the test lamp will glow with all accessories turned off. By disconnecting and reconnecting each electrical circuit, one at a time, the shorted circuit can be isolated. When a disconnect causes the test lamp to go out, you've found the short.

Then trace that circuit, locate and correct the cause of the short.

Manuals — John Deere has four manuals in new editions . . . Engines, Electrical Systems, Hydraulics, and Power Trains. Other manuals and visuals are also available. For details, send to: John Deere Service Publications, Dept. F, John Deere Road, Moline, Illinois 61265, and ask for the free publication entitled, "Fundamentals of Service, Catalog of Manuals and Visuals from John Deere."

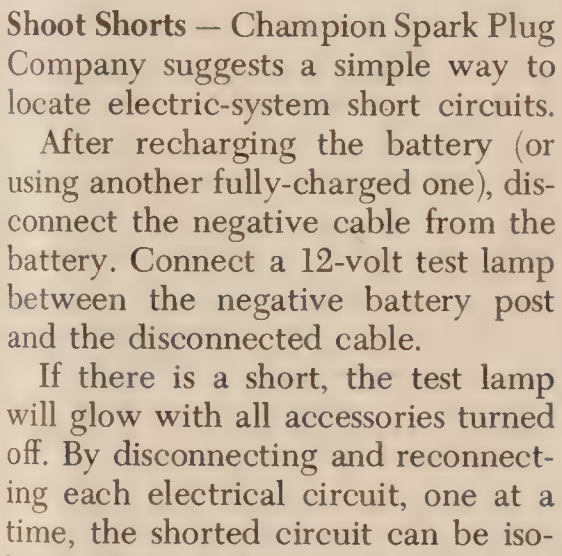
Pure Water — A new line of water purifiers using ozone as the purifying agent is announced by Alron Industries, Inc., 400 Avis Street, Rochester, New York 14615. No chemicals are required, since ozone is made by the units from air and electricity. Operating cost is a few pennies a day.

Ozone, the company reports, can kill bacteria and viruses in a fraction of the time required by chlorine, and adds no offensive taste to the water. It is able to handle a broad range of water problems, including iron and sulfur. For full information, write Dr. W. Alan Burris at the above address.



Several farmers got together and combined ideas to come up with a covered wagon design for their chopper wagon.

The hoops are strap iron strips bolted to the side-boards. Corrugated roofing overlapped and bolted to the hoops completes the job. The cover can be removed by taking out the bolts on each side of the wagon side-boards to make it ready for general hauling. Photo: R. S. Tupper



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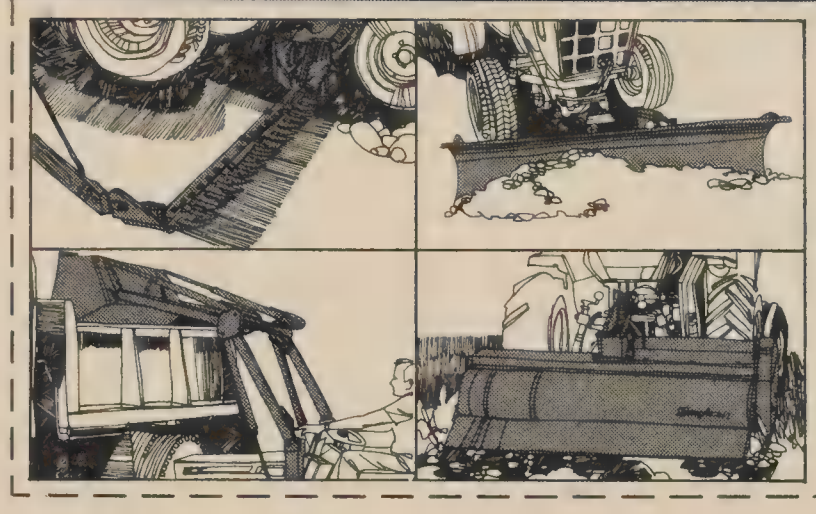
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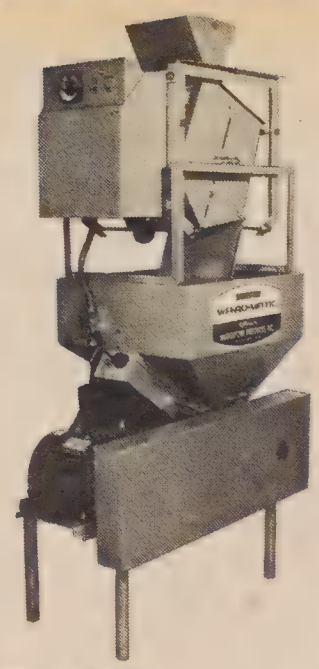
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The accompanying article compares the pulling power of single versus dual rear wheels.

Extra tractor wheels for the

Dual advantage

by Wes Thomas

THE continuing increase in tractor power and weight has prompted many farmers to add dual wheels to their tractors in an effort to increase tractor performance and reduce soil compaction.

From a practical installation standpoint, duals offer several advantages over a single tire of the same overall width:

1. The existing tires on the tractor can be used for one of each pair of duals, thus eliminating the need to purchase relatively expensive wide single tires of the same total width.

2. The dual arrangement can be used for drawbar pull jobs requiring a lot of power (and traction), and then the outer wheels can be removed to reduce the overall tire width for use of the tractor in row-crop cultivation.

Comparisons

Any attempt to compare single and dual-tire performance on the farm is complicated by the fact that field operating conditions are seldom constant. For example, if the same tractor is used for runs with single and dual tires, there can be variations in soil conditions . . . such as hardness, moisture and surface conditions . . . between the two test runs.

On the other hand, if two tractors are used, one equipped with duals and the other with single tires, a number of differences may exist . . . amount of tread wear, tread pattern, and inflation pressure.

In addition, another fundamental question arises. Do you compare performance of single and dual wheels on the basis of the same total weight, or do you compare on the basis of simply adding the second pair of wheels and tires and accept the resulting increase in weight?

Tests conducted at Purdue University and at Ontario Agricultural College provide some interesting clues to tractor performance in both of these situations.

At Purdue, engineers sought to overcome the difficulties presented by variations in field test conditions by conducting their studies under laboratory conditions, using artificial soils that accurately simulate field soil characteristics.

Their test results show that if total weight on the tractor's rear wheels is held constant, dual tires are better than single tires in loose soil conditions as long as slip is less than 30 percent. From a practical standpoint, in field operations, slip should seldom exceed this 30-percent value. Further, they found that dual wheels offer little advantage in firm soil.

The Ontario tests were conducted more nearly on the basis on which a farmer should install duals . . . that is, dual tires and wheels were added to the existing single wheels and the resulting added weight accepted. The effect of adding liquid ballast to both the single and dual tires was also investigated.

Conditions

The tests were conducted on five different land conditions which represented the range of soil types from sandy loam to heavy clay, and the range of surface conditions from dry and loose to hard or to wet and muddy.

Averages taken for the five different test conditions showed that the single rear tires without ballast enabled the tractor to pull 75 percent of its rear-axle weight. When dual wheels without ballast were used, the tractor pulled an average of 89 percent of its weight, but the total increase in pull was greater since it included the weight of the extra tires and wheels.

When the single tires were filled with liquid ballast, the tractor pulled 76 percent of its total weight (which included the weight of the additional ballast). When the dual wheels were filled with liquid, drawbar pull was

also 76 percent, but here the weight also included the additional ballast in the dual wheels.

Since actual drawbar pull is of more significance to the tractor operator than is pull as a percentage of rear axle weight, a comparison of actual pull reveals some interesting results.

1. The use of duals without ballast increased the drawbar pull by almost 50 percent in relation to the pull available with single tires without ballast.

2. Duals with ballast increased pull by almost 50 percent, compared to the use of single wheels with ballast.

3. Single wheels with ballast increased pull by 50 percent compared to the use of single wheels without ballast.

4. Use of dual wheels with ballast more than doubled the pull produced by the use of single wheels without ballast.

These comparisons do not take into account the effect of the tires on soil compaction. In general, however, the increased ground contact area provided by the dual wheels reduces soil compaction.

Summary

Thus, from these tests we can conclude the following:

1. If presently operating with single tires and no ballast, about the same increase in traction can be obtained by adding duals or by installing liquid ballast in the existing tires. If compaction is a problem, the addition of duals would be the preferable choice.

2. If presently operating with single tires with ballast, switching to duals without ballast will produce approximately the same drawbar pull, but reduce soil compaction.

3. For maximum drawbar pull, use dual wheels with liquid ballast in all the rear wheels. With this arrangement, you expect compaction will be somewhat greater than that produced by the single wheel without ballast, but it will be considerably less than that produced by the use of single wheels with ballast.

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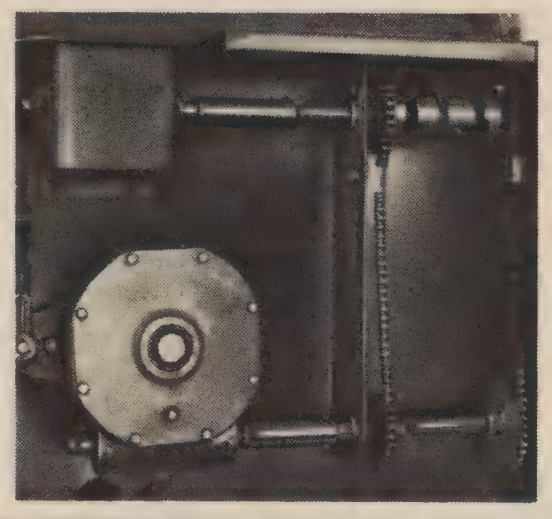
The eighth in the Better Environment series of educational cartoon-type booklets published by the Soil Conservation Society of America is ready for distribution.

A 16-page, four-color booklet designed primarily for young people, "The Earth, Our Home in Space" tells how the earth was formed, how it became habitable, and how it provides mankind with food. It also relates how man must conserve the earth's resources if they are to be enjoyed in the future.

Booklets are designed primarily for bulk sale to organizations, companies and business firms who may use the back page to carry their firm's name or message. Single copies, however, are available for 25 cents each, and a complete sample set of the eight booklets may be obtained for $1.00 by writing to the Society at 7515 N.E. Ankeny Road, Ankeny, Iowa 50021.

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Feed and weed specialists get together to talk shop. From left: Dr. John Siemens, agricultural engineer from University of Illinois; Harry Melton, president of Tri-County Chemical, Inc.; Don Johnson, agronomist with Allied Chemical Company; Ellery Knake, weed specialist from University of Illinois; and Robert Christensen, field agronomist with DeKalb Research.

The timesavers

by Robert E. Jensen

"**FEED** and Weed" has come of age, and many agricultural specialists are hailing it as one of the biggest steps forward in crop management during the last decade. Agronomists at most midwestern colleges of agriculture agree that it's a practice that will grow in importance.

Not long ago, farm management decisions concerning selection and application of fertilizers and herbicides were unrelated. Fertilizing and weed killing were two separate and distinctly different operations. Today, however, the two operations can be combined and . . . most importantly . . . combined on a practical, on-farm basis.

Practicality is the key word. As the word spreads, more growers find they can switch to this new dimension in crop production. The trend is documented by a Doane Agricultural Service statistical use study which shows a 24-percent increase last year in the amount of liquid fertilizer applied in combination with herbicides. According to Bob Tagg, director of market planning for Allied Chemical — one of the leading producers of liquid fertilizers — this figure is conservative.

The gathering movement toward the feed and weed concept is also backed by other key industries involved in the manufacture of herbicides.

Trend

Stauffer Chemical Company, for example, in the words of Dr. Douglas Murphy, states its position this way: "The trend toward — and necessity for — larger farm units will spur the trend toward pesticide/fertilizer combinations. To save application costs and soil structure, multiple trips over the field will have to be reduced as much as possible. We know that substantial quantities of Stauffer's pesticides . . . including Sutan, Sutan-atrazine, Eptam and Dyfonate . . . were applied in this manner last season."

According to Ciba-Geigy Corporation, more than 3½ million acres were "fed and weeded" last year with its corn herbicide AAtrex (atrazine), or atrazine combined with other herbicides. In addition to AAtrex, other Ciba-Geigy herbicides currently labeled for tank mixing with liquid fertilizers include, Princep (corn), Attrex-Princep tank mix, Milogard (sorghum), Igran (wheat), and Cotoran (cotton).

Labeled

James Shue, marketing manager of farm chemicals for Amchem Products, Inc., points out that its special formulation of 2,4-D, called Weedone 638, is currently labeled for mixing with liquid nitrogen on corn. He sees an additional area for future growth in turf applications, and a longer-range opportunity in zero-tillage soybean production.

According to field trials conducted by Allied Chemical at Clear Lake, Iowa, liquid fertilizer and pesticides can be loaded and applied at a rate of 44 acres an hour. Loading and applying ammonia alone slows down to about seven acres an hour, plus another trip across the field required for applying the herbicide.

Even more interestingly, some reports from growers and dealers indicate that herbicides give better control when applied with fertilizers

(Continued on page 21)

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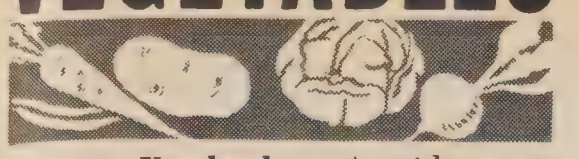
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VEGETABLES



Tomato Yearbook — A wide range of useful information for the entire tomato industry is contained in the 1972 American Tomato Yearbook now off the press. A special feature is the illustrated article "Growing Tomatoes for Mechanical Harvesting," prepared by W. Bradford Johnson of Rutgers University.

Other features include a classified directory of business concerns serving the tomato field, and an up-to-date list of more than 200 references pertaining to tomato culture, tomato diseases, pests, tomato books and publications.

Copies may be obtained from: American Tomato Yearbook, P. O. Box 279, Scotch Plains, New Jersey 07076. Price is $3 ($3.75 outside the U.S.). A complete set of all issues still available (1953, 1955-1972) is $35.

Mixology – Latest on basic mixes for growing plants (developed at Cornell University by vegetable specialist Ray Sheldrake) can be found in the new "Information Bulletin #43 – Cornell Peat-Lite Mixes for Commercial Plant Growing." Copies, while they last, are available at 25 cents each from: Mailing Room, Building 7, Research Park, Ithaca, New York 14850.

Soil Additive — The Agri-Chemical Products Division of LTV Aerospace Corporation is marketing two new organic products . . . OD-4 Liquid Humus, and Microtil Soil Conditioner. Microtil is a live-microorganism material designed to open up heavy soils with increased water penetration and retention.

The same company produces Foamspray, a recent development that helps prevent spray drift.

Bean Mold – White and grey molds have long troubled northeastern snap bean growers. The fungicide Benlate has proven to be very effective against both . . . and it is now joined by a new fungicide Topsin M.

In tests by specialists at the Agricultural Experiment Station at Geneva, New York, two applications of these materials resulted in better control than one spray . . . applied when 70 to 80 percent of the plants showed the first open blossom, and then one week later. Application to the blossom area is critical; covering the leaf area only will not do the job.

Work Easers – Interest in improved mechanization for greenhouses and plant nurseries, particularly in the Northeast, is on the increase, says agricultural engineer Sverker P. E. Persson of Penn State.

Included in new developments are machines to make soil cubes that need no containers, and a pneumatic seeder that can handle 96 individual flower seeds at a time.

Growing plants without soils is attracting increased interest. A growing medium for geraniums is made of specially-treated paper pulp. Cucumbers are grown on bats of rockwool instead of soil.

A variety of mechanical systems are in use for watering plants. Mechanization is also helping with the task of pulling shade cloth over plants to increase the length of the dark period, thereby promoting flowering.

Bean Harvester – A recently-developed snap bean harvester will pick pods from plants with any between-row and within-row spacing. Its harvesting head is similar to that of a self-propelled combine cutting small grains. One type is the Multi-D Harvester manufactured by the Chisholm-Ryder Company.

N.H. Peck, of the New York State Agricultural Experiment Station at Geneva, reports extensive field tests reveal that beans planted with 12 inches between rows will yield 30 percent more per acre than beans planted in 36-inch rows . . . if good management and favorable growing conditions accompany the shift. "Unless a grower does **a lot better job** of bean growing when he shifts to narrower rows, he might better stay with 36-inch rows," he emphasizes.

He continues, "Perhaps a modified system of rows 16 to 24 inches apart will be best for some growers."

Timesavers . . . . .

(Continued from page 20)

instead of water. Some observers feel that a difference in weed control could be related to the total gallonage being applied per acre.

Water and herbicide mixtures are usually applied at minimum rates of 15 to 20 gallons per acre while feed and weed combinations are applied at rates of 25 to 60 gallons per acre. The higher rates give more uniform coverage to the soil surface.

Application equipment designed for liquid fertilizers seldom requires modification for feed and weed use. Equipment should provide good agitation to mix the combined materials. Herbicide sprayers normally should not be used unless the maker states that the unit also can be used for liquid fertilizers.

The obvious advantage of a feed and weed program is getting two or three jobs done at once, thus saving labor and time, reducing compaction problems, and permitting more undivided attention to getting seed into the ground.



Eastern dairy farmer favors Patz manure handling equipment

"We're sold on the dependability of our Patz equipment,"

says Gene Sheldon, Clinton Corners, New York

Mr. Gene Sheldon (above, right) and his son Gene, Jr. (left) have relied on their Patz barn cleaner and silo unloader for manure and feed handling on their farm for the past fourteen years. The Sheldons operate a 190-acre dairy farm in southeastern New York where they raise corn for silage, oats and alfalfa on 100 acres. Their herd of 53 purebred Holsteins produces 15,000 lbs. of milk with 580 lbs. butterfat. Since 1959, the manure handling chores in the Sheldon's stanchion barn have been done by their Patz barn cleaner. "Our cleaner has run every day for fourteen years without any trouble, and it's still going strong," says Gene Sheldon.

A few years ago the Sheldons increased the size of their dairy herd from 38 to the present 53 head and extended their barn to accommodate the new cows. Adapting the barn cleaner to the new layout was no problem. They just aligned the gutters in the new section with those in the existing barn, added 120 feet of chain and flites in the new gutter, and hooked it to the old chain. "Increasing our barn cleaner capacity was just that easy," says the dairyman.

The Sheldons figure the operating cost of their barn cleaner in pennies. Taking their average herd size during the past fourteen years to be about 45 head, their Patz barn cleaner has cost them just one cent per cow per day for manure removal. "Just try to hire someone for 45¢ per day to shovel manure!"

About his silo unloader, Mr. Sheldon says, "We've had a Patz unloader on our farm since 1960. It's given us excellent service and is easy to move from one silo to another. By transferring our unloader from silo to silo during the year, we have already gotten the equivalent of 20 to 30 years use out of that one unit when compared with a silo emptied just once a year."



Fourteen years of dependable service are behind this Patz barn cleaner installed on the Sheldon dairy farm in 1959.

"Patz equipment has proven its dependability over the years and we recommend it to anyone. Any expansion on our farm will include Patz," say the Sheldons.



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Bart Misiewicz explains the milker system's electronic brain circuitry to Extension agent Tom Schultz (left).

YOUNG FARMER

Bart Misiewicz operates a 65-cow dairy farm near East Meredith, Delaware County, New York. There are 200 acres in the farm (90 tillable), and 125 more tillable acres are rented. Supplementing him in the work force are his mother, who feeds the calves . . . an uncle who works part time . . . and a couple of high school boys who help with haying.

The farm-management experts combine all the people involved in working on a farm, and come up with a "man-equivalent" number . . . which is 1.5 here. In 1972, this work force produced 800,000 pounds of milk sold, and Bart is shooting for a million pounds in 1973.

City Boy

Bart was brought up in New York City, but worked on farms during the summer ever since he was 13 years of age. He's an animal science graduate of Cornell University, and served two years with the Peace Corps in West Pakistan.

The milking herd is housed in conventional comfort stalls, but milked in a double-three, side-opening Surge milking parlor equipped with QTO (quarter take off) milkers. The milking equipment is cleaned-in-place (CIP) in the parlor under provisional acceptance by the milk inspector. "Milk bacteria count has been low . . . down to as low as 3,000 . . . so the CIP principle should pose no problem," Bart comments.

The herd is moved from the conventional stable into the holding area all in one batch. Bart reports, "For labor efficiency, I think it's important to move them all at one time, and have a holding area big enough to take 'em all." The feed bunk forms one side of the holding area . . . and cows coming from the parlor go to the area on the opposite side of the feed bunk.

Faster Milking

Bart does practically all the milking, figures on doing 50 cows per hour . . . versus 20 cows per hour with the dumping station setup he previously used in the stabling area. A crowd gate keeps cattle moving into the parlor.

He likes the QTO, but comments, "It's a machine . . . and every machine still needs to be tempered with human judgment. For instance, it may have to be put back on a slow milker now and then after machine judgment has dropped a teat cup off."

How did he get the herd used to the parlor . . . equipped as it is with wands to actuate gates opening and closing? "I fed the herd grain in the parlor (without milking them) for eight days prior to using it for milking," Bart reports. "We didn't have any problem with milk letdown when we started using the parlor for real."

Prep-stalls, with floor-mounted spray nozzles that wash the cows automatically on their way to the stalls, are a part of the system. Bart plans to use these when warmer spring weather arrives, but hesitated to start in cold weather because a neighboring farmer raised the question of udder-chapping problems. — *G.L.C.*



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Your forage crop

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MUST dairy farmers look to additional cropping or nutrient supplements to fulfill their herds' feed requirements?

"Before any dairy farmer considers additional crop acreage, or purchasing extra feed or supplements on a regular basis, he should first take a hard look at his **present** crop management," says Bob Seaney of Cornell University's agronomy department.

"Chances are he is getting the most out of his crop, but his cows may not be seeing as much of his harvest as they should."

Lose Some

According to Seaney, even the best alfalfa grower loses 15 percent or more of the yield before it gets to his cows. "This is just normal attrition that occurs from harvest to storage to feeding, and there is not much anyone can do about it," he says. "But the important point is that if you have to lose this much of your yield, you don't want to lose any **more**. If you do, the sooner you are going to have to add to your feed sources . . . and this costs in terms of time and labor as well as money."

There are a number of ways a grower can maximize his yield, according to Seaney.

"Silage, rather than dry hay is more efficient when it comes to preserving your yield," he says. "In practice, dry hay is more vulnerable to weather damage and leaf shattering. A grower can lose up to 30 to 40 percent or more of his crop this way.

"It's also important to keep the crop weed-free," Seaney points out. "Weeds don't interfere with bulk, but they can seriously reduce the nutritional value of the harvest, and ultimately they can take over in the crop."

Blackhats

Nutsedge (nutgrass) and quackgrass are especially troublesome in New York's alfalfa fields.

Weed specialist Bill Duke, also of Cornell University's agronomy department, points to nutsedge as one of the State's worst problem weeds. "We recommend that where growers see nutsedge starting to move in, they treat it promptly before it has a chance to get a foothold in the crop," he states.

"One of the best ways to check nutsedge is a pre-plant application of Eptam before seeding first-year alfalfa, followed by soil incorporation. This requires the grower to go with clear-seeded or pure alfalfa because Eptam will kill any companion crop such as timothy."

A pure alfalfa stand is more vulnerable to winterkill and heaving, but Duke points out that the risk is worth taking if you have a nutsedge or quackgrass problem developing.

Duke stresses that nutsedge poses a real threat here. "Most growers are on an intensive farming rotation . . . four or five years of alfalfa . . . maybe three years of corn, then back to hay," he says. "This kind of cropping, plus high rainfall, contributes to rapid nutsedge spread, if you don't take precautions. Most growers are aware of the problem, and are switching to clear-seeded stands when they have to."

"In the last few years, we have seen a more than 20 percent increase in clear-seeded alfalfa production in New York," Bob Seaney reports.

While Duke and Seaney highly recommend Eptam for nutsedge control, they both add a warning, "Don't use it on a field to be seeded where you have applied more than one pound (active) of atrazine on corn the year before," Duke says. "The combination of atrazine carryover and Eptam can injure the crop."

Another important factor in getting the most out of your crop is in harvesting.

"Timely cutting cannot be overestimated," Seaney states, "It can make a difference between having two or three cuttings over the season, and it also can make a lot of difference in quality. Most alfalfa should be cut first in late May or early June.

"The crop is then at its peak nutritionally," Seaney adds. "Once this peak has been passed, crop quality starts decreasing.

"Between June 1 and June 30, the crop will decrease about a half-percent per day in energy value or TDN, and by about a quarter-percent per day in protein," Seaney states. "If you could cut early enough to get three cuttings instead of two, you stand to gain anywhere from a half-ton to one ton per acre.

The point is that if you spend from $100 to $125 per acre to establish a good stand of alfalfa you should take care of it and get the most out of it.





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Tree growing

by Bill Rawlings

ONE of the best uses anyone can make of idle land, especially land that has not been fertilized or limed for a long time, is to plant it to Christmas trees.

The first step is to decide which variety is best suited to your land. Remember that nature, not man, really makes the decision. Certain species grow best in one type of soil, others require different soil conditions.

Most of our success in growing trees can be credited to our local SCS technician, Dave Anna. Dave walked every inch of our property, then went back to his office, worked out a land use map, and encouraged us to reforest accordingly. His plan surely worked for us, since almost every tree planted over the past score of years has grown well.

Basically, Dave followed this pattern: plant spruce in wet or swampy areas, pine in dry or upland areas. Of course, your own long-term goals should also be considered. Do you want a Christmas tree crop, timber, cover for rabbits and birds, or just personal pleasure?

Memorial

One can leave no finer living memorial than a grove of stately evergreens that will steadily increase in value and beauty while offering a haven for wildlife and nature lovers. Ecologists too will want to plant trees for water and soil conservation.

Once you have planned what to plant and where to plant it, you should shop carefully for a source of seedlings. You will find that the quality of seedlings varies tremendously from nursery to nursery.

If possible, order a lot of 50 or 100 seedlings from each supplier you are considering. Compare. Decide which offers the finest seedling for the best price. Buy in the largest quantity you can handle and ask for the best possible price when you buy in large lots.

Some states have publicly-financed nurseries from which seedlings can be purchased. New York, for instance, sells trees to landowners for $20 per thousand, plus shipping charges.

We generally order our sample lots for delivery in September and October. This gives adequate time to look them over, and to hear from at least ten nurseries. Seedlings that aren't planted can be heeled in for spring planting. So far as we have seen, it does no harm to hold them over winter. In fact, some nurseries dig, bundle and store in the fall; when the spring rush is on, they can just mail out the stock rather than wait for the snow to leave the seedling beds.

Difference

You will also find a great deal of difference in the way nurseries do business. For example, we ordered seedlings from one nursery and sent an overpayment (cost of seedlings plus postage). The operator never: 1) acknowledged our order 2) returned the overpayment or 3) replied to the letter enclosed with our order. Nor did he give extra seedlings to cover the overpayment.

His seedlings were excellent in every way . . . good color, well-developed root systems, excellent conformation . . . and we surely would like to do business with him. But there are many others who would appreciate our business, send a statement, let us know when the trees are being shipped, refund the overpayment to the penny, reply to our letter, and send along a note of thanks! They'll get my business, and they deserve yours.

Seedling costs won't vary much more than a nickel a tree, planting costs should not go above another nickel a tree, and it costs little more

to raise excellent seedlings than poor ones.

When your seedlings arrive, make haste to unpack them. Pop them into slit trenches, cover the roots completely, and saturate the soil with water. Make sure air cannot reach the roots. If the quantity is small enough that they can be planted within the next day or two, you might wish to set them in a tub of water until they are planted.

Our preference is early-April shipment; then the trees can be planted when we have time. It does little harm to have them on hand in the

want. Scotch pine has been pushed as "The Tree," yet many growers find it has a tendency to turn yellow in the fall, or grow with a crooked trunk.

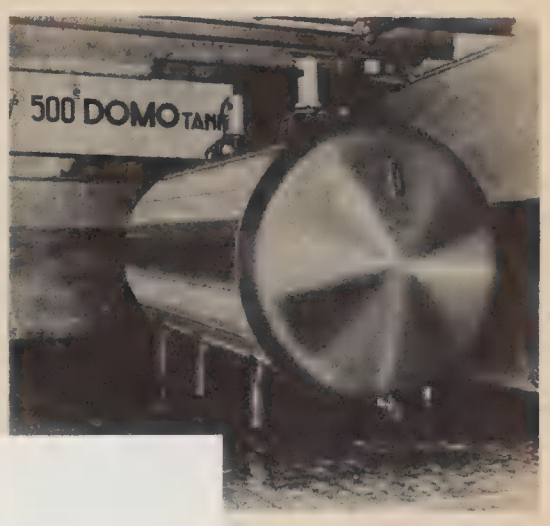
Austrian pine has grown well for us, but it is hard to market after it reaches the eight-foot mark. Red and white pine are grown and sold as Christmas trees, but our experience would influence us to plant them as a timber crop instead. Sawflies seem to love the flavor of both red and Scotch pine, and the central leader of the white pine is often lost to another insect, causing crooked

The cut-your-own method allows the public to harvest their own trees; it becomes a family tradition with mom, dad and the kids making a jaunt all over the plantation in search of that one special tree. Each year happy customers return, bringing the family for a visit and a chance to find a perfect tree.

Waste

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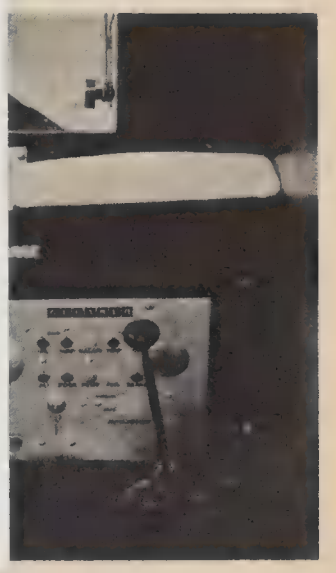


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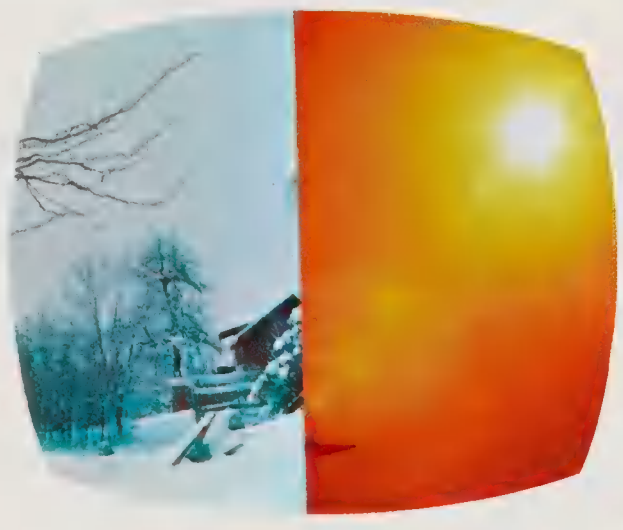
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Plain talk about Onduline's 25-year guarantee



Unlike some guarantees that are filled with "ifs", "buts," and buried conditions, the Onduline guarantee is straightforward and simple. All you have to do is register the guarantee at the time of purchase and be certain the sheeting is installed according to the simple instructions. That's all the "fine print" there is! If the originally installed sheeting is found not to be waterproof within 25 years from the date of purchase, the material will be replaced. In other words, you are fully protected. On the other hand, so is Onduline, since we've seen the product endure the worst weather extremes over a period of 28 years. So, frankly, we don't expect you to be putting the guarantee to much use, but it's nice to know it's there.

Technical talk about Onduline

Onduline sheets are available with smooth (Isola) or granulated finish. The colors available are black, red, green, slate grey, and silver in smooth and red, green and slate grey in granulated.

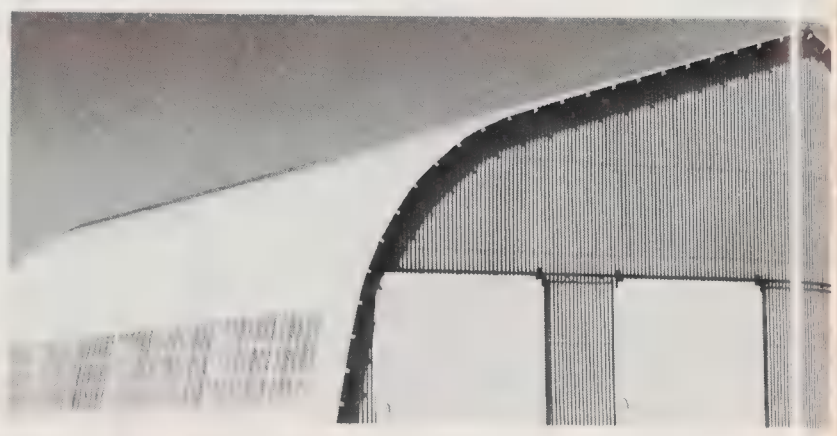
Standard Sheets:		Corrugations:	
Length	6′7″	Frequency	10 per sheet
Width	2′11″	Width	3⅝″
Thickness	⅛″	Depth	1 3/16″
Weight	15 lbs.		

Ridge Piece:

Length 2′11″ Wing Width 7″ Weight 3 lbs.

Construction system: The same as for metal or shingles, but no deck required—purlins on 2 ft. centers max.

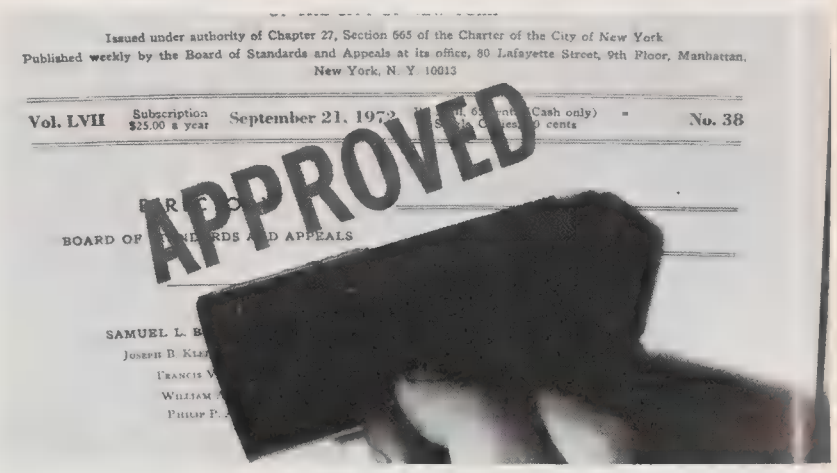
Insulation Properties: Onduline's thermal insulation value is 0.85, almost as good as cork, nearly twice that of corrugated asbestos!



Flexibility: Onduline can be curved easily down to a radius of 15 feet to follow the profile of a structure, including variations, horizontally and longitudinally.

The Onduline Testing Program

Anyone can talk about a product's qualities and performance. At Onduline, we believe in testing before talking, so we contracted with National Testing Laboratories and told them to give Onduline the works. We're proud to say that Onduline has proven itself and more than lived up to our expectations. As we're sure it will live up to yours. In fact, as a direct result of our testing program, Onduline was



awarded the approval of the New York City Board of Standards (calendar #375-72-SM), one of the strictest building codes in the U.S.

Onduline

ROOFING SIDING

15 Columbus Circle, New York, New York 10023

For more information on where leak-proof Onduline roofing and siding is available, contact the distributor nearest you.

COTTON-HANLON, INC.
Odessa, N.Y. 14869
(607) 594-3310

A. C. DUTTON LUMBER CO.
Box #126, Palmyra, N.Y. 14522
(315) 597-4803

12 Raymond Ave., Poughkeepsie
N.Y. 12613, (914) 454-7000

HEADWATER'S SUPPLY CO.
Railroad Ave., Hobart, N.Y. 13788
(607) 538-9041

HOLBROOK LUMBER CO.
54 Railroad Ave., Albany, N.Y. 12205
(518) 489-4708

KRAUS WHOLESALE CORP.
425 Northumberland Ave., Buffalo
N.Y. 14215, (716) 896-1885

MASSENA FUEL & BUILDING SUPPLY CORP.
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(315) 769-3538

PETERSON'S MATERIALS, INC.
2145 East Henrietta Rd., Rochester
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RIVERSIDE MATERIALS, INC.
River Road, Marcy, N.Y. 13403
(315) 724-8128

SHEPARD & MORSE LUMBER CO.
Syracuse Division
P.O. Box #31, Midler Park Drive
Syracuse, N.Y. 13206,(315) 437-2995

BRADCO SUPPLY CORP. 23 Production Way, Avenel, N.J. 07001, (201) 382-4242
530 James St., Lakewood, N.J. 08701, (201) 364-7000

you can handle and ask for the best flicker a tree, and it costs little more

to raise excellent seedlings than poor ones.

When your seedlings arrive, make haste to unpack them. Pop them into slit trenches, cover the roots completely, and saturate the soil with water. Make sure air cannot reach the roots. If the quantity is small enough that they can be planted within the next day or two, you might wish to set them in a tub of water until they are planted.

Our preference is early-April shipment; then the trees can be planted when we have time. It does little harm to have them on hand in the slit trench, and you don't have the question of when your trees will be coming.

Planting

In our experience, the best method of planting has been with a long-handled shovel. One person pushes the shovel into the ground, and moves the handle ahead. Another person, carrying the trees in a bucket about a quarter full of muddy water, sets the seedling into the slit, stamps the dirt tight, and gets out another seedling.

The shovel man has moved two paces forward and inserted the shovel again to start the process once more. A definite rhythm will develop after a while, and you'll be amazed at the number of trees that can be planted in a short time using this method.

If your soil permits, you might consider planting with a machine. They can do a fine job; they're fast, and spacing is excellent. While one man drives the tractor, another sits on the tree planter and feeds the trees into the "fingers" that insert them into the rows.

The best operations generally have a third man who checks to be sure the trees are planted at the proper depth and at the right spacing. He can also carry a new supply of seedlings to the machine whenever necessary. You can get an outstanding planting with this operation, but much depends on the skill and interest of those who operate the machinery.

Part of the cost of planting has been paid by the local ASCS offices in the past. The payment will vary from year to year, so it is well to contact them when you plan your planting. Make sure your planting meets their requirements for payment **before** you plant; after may be too late.

Favorites

Our personal favorite of all the trees we have planted has been the Colorado blue spruce. It always sells well and commands a premium on the market. Little care is needed, and they surely add beauty to any plantation.

White spruce is another favorite, although they have a tendency to send up a double stem. One must select the better of the two stems and cut out the other one. Norway spruce is more susceptible to insect damage, and has not done particularly well for us in comparison with other species.

Pines are an enigma. Generally they grow rapidly, and while the rapid growth is desirable for timber, it forces the grower to prune extensively to retain the shape buyers want. Scotch pine has been pushed as "The Tree," yet many growers find it has a tendency to turn yellow in the fall, or grow with a crooked trunk.

Austrian pine has grown well for us, but it is hard to market after it reaches the eight-foot mark. Red and white pine are grown and sold as Christmas trees, but our experience would influence us to plant them as a timber crop instead. Sawflies seem to love the flavor of both red and Scotch pine, and the central leader of the white pine is often lost to another insect, causing crooked growth.

Selective

Balsam and Douglas fir are temperamental trees. They bring a good price as Christmas trees; at the same time, they are very selective as to site. A grower not far from us specializes in Douglas fir, his product is outstanding in every way, and he sells all he wishes to. Our Douglas fir has grown poorly, and no one who saw the miserable specimens on our lot would ever plant one.

Our balsam was planted in a place where it was not supposed to grow. The problem has been a too-rapid rate of growth, giving us a 20-foot tree in too short a time. It never had a period, even with pruning, when it could be sold as a Christmas tree, and it has outgrown all other species planted at the same time.

Costs

Basic plantation costs can be divided into land, labor, raw materials and taxes. Assuming you already own land suitable for trees, then labor will be the most costly of all items involved in tree production. Labor involves planting, pruning, spraying, inspection (for insects, disease, theft, general health and well-being) and harvesting. This seems like plenty of work, and it is. Yet one grower feels that he gets a return of $25 for each dollar of labor cost.

Pruning is an annual chore, one that is vital and rewarding. Buyers will always select pruned trees over unpruned trees. Remember that. If you don't, your competition may, and you'll have many unsold trees. Ask your county agent where pruning clinics will be held; one demonstration is worth thousands of words.

Also, ask him for the address of your state Christmas Tree Growers Association . . . and join. The small cost will be returned many times in the amount of information given you.

Spraying

Spraying may be a task you can escape if your plantation is not attacked by insects or disease. The minute you do see something amiss, ask your county agent to visit the plantation and diagnose the problem. Sure signs of trouble are needles falling, trees off color or turning color, a lack of needles, and all trees in one area dying.

Harvest costs can be almost nil, providing your location permits a choose-and-cut-your-own-tree type of operation. Otherwise each tree must be sawed, hauled out, graded, and hauled to market. Trees are usually bagged or tied for this trip, and this is an additional expense.

The cut-your-own method allows the public to harvest their own trees; it becomes a family tradition with mom, dad and the kids making a jaunt all over the plantation in search of that one special tree. Each year happy customers return, bringing the family for a visit and a chance to find a perfect tree.

Waste

Few trees are wasted in this method. Every tree is sold when it's cut, and you avoid all the middleman's profit. The buyers pay cash, reduce your labor costs by cutting and dragging out their own trees, have a wonderful time, and leave the unharvested trees for next year.

Biggest disadvantage is that the cutting is super-selective. Trees are cut from all over the area, and poor trees are left. You can avoid this by restricting sales to one area, but most folks want to look at every single tree and choose the one they like, regardless of the area.

One should realize that every tree planted will not sell. It is good to leave some to supply seed, to offer shelter to wildlife and birds, and to beautify. And much of the question of whether to plant at all is based on personal choice. If your land is top-quality cropland, or if it grows exceptional hay, it would be foolish to plant trees there. If it is run-down meadow, land that should never have been farmed at all, trees are a wonderful use for it.

Very few millionaires made their money from Christmas trees! The general figure is about 1,000 trees per acre, based on a six-foot spacing between trees and between rows. The lucky grower will harvest an average of half this number over a 10 to 12-year period. The average price won't exceed $3.

Taxes

The next item to figure is taxes. Add in cost of trees and other expenses; deduct all costs from gross income and you'll agree that millionaires don't get their money from Christmas trees.

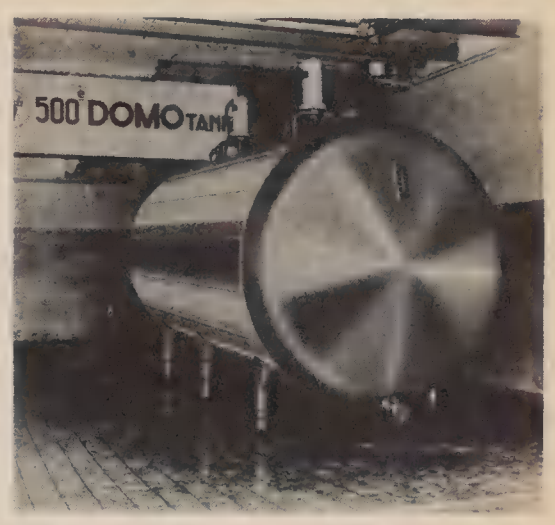
On the other hand, there is surely a sense of accomplishment in seeing a tree grow, in seeing a happy family carry home the heart of their Christmas celebration, and in wandering through an evergreen plantation. And the man who plants and carefully supervises his planting will make a profit in the years ahead.

This is a good time to get started. Many older plantations have been neglected or absorbed by housing developments. Younger folks don't seem to want to go to the trouble of planting and caring for something over a long term.

What of the years ahead? Will the "tin tree" affect the market? Most folks don't feel the artificial tree truly represents the spirit of Christmas. It just isn't genuine, it offers no pleasing aroma, no feeling of nostalgiz. The basic family pleasures are missing in a family that has never chosen and cut their own tree, dragged it out of the woods, and enjoyed every minute in the outdoors.

Our personal feeling is that the demand for natural trees will exceed the supply in years to come, unless there is a drastic change, and the man who plants this spring will make a good dollar in the years ahead.

With Our ADVERTISERS



A celebration to commemorate the delivery of the 500th Zero bulk milk cooler to DOMO, one of the largest dairy cooperatives in the Netherlands . . . and its installation on the farm of R. van Gijssel at Beilen . . . was held recently on the van Gijssel farm.

In 1969, the average bulk tank size there was approximately 400 gallons . . . with a herd size of about 30 cows. This has now risen to 1,000 gallons for about a 60-cow herd.

Avco New Idea is marketing a liquid manure agitator-loader with capacity up to 3,000 gallons per minute. An exclusive feature is auger flighting on the pump drive shaft which creates a steady flow of material to break up troublesome top crusts.

Electroflex, Inc. is producing a device (called the Econo-Groomer) to groom cattle. The vibrating motor is mounted on the user's belt, and power is transmitted to the tool by a flexible cable . . . preventing the fatigue and circulatory problems associated with excessive vibration of hand tools.

Allis-Chalmers' new-for-'73 Gleaner Model "M" combine with electrohydraulic controls replaces Model "G" which has been in the product line since 1968. Shown is six-point monitoring system, telling operator at a glance about operating conditions at critical areas.

Features include two-stage threshing, three-stage separation, ten-foot-long open bottom walkers on six-inch throw cranks, and a new transverse flow fan with dual outlets for added cleaning capacity. The new "M" has a 105-bushel grain capacity, with bin extensions available to accommodate 165 bushels.





LAND STEAL

Read your recent editorial about Mr. Murphy's trouble with the New York State Dept. of Environmental Conservation. God bless Mr. Murphy, and we hope he sticks to it and wins. The rights of property owners of New York State are fast being taken away . . . by fair means or foul.

But if you think this case is "weird," what do you think of the Adirondack Park Agency's proposal to regulate the use of privately-owned land?

Their meetings are held in secret . . . the press is banned. We landowners are not allowed to attend. Town supervisors are allowed at special meetings, yet Town of Queensbury (Warren County) supervisor John D. Austin stated last week that he had never yet received a notice of a meeting.

Ecologists are crying, "Save the Adirondacks," apparently forgetting that 2½ million acres of state-owned lands are "saved" in utter waste. They do not need to control our private lands . . . telling the small towns what population they will be "allowed."

It is the largest land steal since Indian times.

Having 2½ million acres of Forever Wild is certainly enough . . . it is a waste of natural resources. They are trying to create a rich man's paradise.

None of us who live within the so-called Blue Line ever voted to be included, so it seems very un-American to be controlled by a governor-appointed agency. — *Mr. and Mrs. Fred Stiles, Fort Ann, New York.*

FOOD SHORTAGE

Your recent editorial page included a well-thrown haymaker at the hypocrites, bleeding hearts and the sobbing sisters who like to assume a holier-than-thou attitude when they try to put the bite on someone else to gain something for themselves.

Food prices are rising because of shortages of farm products . . . largely caused by low prices paid to farmers for too many years. Some of the old advertising hoaxes will no longer be effective in the polysaturated fat line.

Some farm economists lay the cause of food shortage wholly to Hurricane Agnes last summer. I am more inclined to lay the blame on Big Agriculture that planted and concentrated its crops in all of those lowlands.

Of course, the lower lands and valley bottoms are more fertile and level and thus attract large-scale operations. But they are more subject to floods and frost. Big Agriculture is also more subject to the whims of organized labor.

The family-sized hill farmers have largely been forced to leave the land. Of course, they left "voluntarily," but they did not want to go. They left because the debt collector, the tax collector and the sheriff were breathing down the back of their necks.

The Russians are finding out that their agricultural communes cannot feed all of their people. It looks to me like a similar situation can occur in the U.S. with our Big Agriculture and Agribusiness. When policy-making gets in too few hands, then errors begin to crop up.

The social aspect of agriculture has been too long ignored and neglected. The early part of my long life was deeply embedded in a good-neighbor policy where neighbors helped each other and exchanged labor. In fact, it was a good-neighbor philosophy that founded our republic. — *F. W. Beneway, Ontario, New York.*

ENJOYS FARMING

It was about thirty-five years ago I came on this farm, fresh from an institution of learning. It wasn't long before I was kicking myself all over the lot for finding myself in such a gosh-awful place. I worked my behind off and seemed to get nothing for it . . . but it wasn't long bedore things changed, and now you couldn't drag me off this farm with a John Deere 2020!

You have read of the Divine Right of Kings, wherein Louie Somebody-or-other rode horseback with his hangers-on . . . chasing a measly fox over meadow and dale, trampling down peasants' crops, ruining fences, to say nothing of knocking over a peasant or two. Oh how Louie was loved by the farmers for that!

Today, we have the Divine Right of Farmers, and with a little trying we could be as unloved as the despotic kings. People are flocking out of the stinking, crime-infested cities, looking to the farmer for a little of his land, looking for a stream still unpolluted, and some land to grow food on. We farmers have the world by the tail and could easily tell them all to go to hell, but I will be a little easy on them if you will.

Oh, how I enjoy the divine right of a farmer to keep the best and the last of a crop for himself! I grow some sweet corn for myself, and always a little left over to sell. An affluent dame drove up in her Continental last summer and wanted some corn.

"Sorry, lady, what's left is earmarked for my table."

I knew from the way she looked at the hair sticking out of a hole in my hat, and my general comfortable (seedy, to her) appearance that she was dead certain she could get that corn by overpaying its worth. But in the end she trotted off to the supermarket and settled for much-pinched ears, with the prune-faced kernels and the sarcophagus taste.

Yes, I enjoyed that, but I hope I am man enough, when it comes right down to the last bin of wheat, to share it with those who are wont to look askance at the farmer. — *John Issler, Westfield, New York.*

PLAY IT SAFE

The picture you published of a modified gasoline tank being used for grain storage reminds me of a near-fatal accident that happened recently in our fire district.

Preparing to cut the top out of a supposedly harmless oil drum, a farmer was rendered unconscious for 19 days (plus suffering the loss of one eye and severe concussion) by the violent explosion when the torch neared the hole in the drum. Quick action by fireman Donald Jarvis, giving mouth-to-mouth resuscitation, gave life back to this man and he is recovering today.

I trust anyone using a torch around what has been a gasoline tank will use great caution in converting it into a grain storage. — *John Zastrocky, Chief, Bergen Fire Department, Bergen, New York.*

Editor's note: Chief Zastrocky is so right. Better fill the tank to overflowing with water to flush out gasoline fumes before torching it.



A perforated plastic tube brings fresh air to calves housed in what was once a dairy stable. MacPherson Harmon and his wife, Ida, operators of Oatka Trail Farms near Mumford, New York, like this system in what would otherwise be a dank death trap for at least some of the calves.

ORGANIZE

I am writing this letter with much respect for those who have called for the organization of farm people. We are tired of the government stepping on our toes. Farming has long been an American way of life; certainly a life to be proud of. Farmers have always stood for and behind this great nation.

With President Nixon's recent cuts in the agricultural and rural programs, how can these rural Americans maintain their beliefs and trust in our government? At the same time, our politicians will find it even harder to maintain farmers. I feel that as an organized group (s), we can come out and do some stepping ourselves. Not necessarily on anyone's toes, but steps to our further benefit.

Please people, heed the call. Unity and firm support are essential. Let's not get stepped on anymore. Replies appreciated. — *Walter Greiner, 15 Oak Ridge Road, Ramsey, New Jersey 07446.*

YESTERYEAR'S CHURCH

Strenuosity was the key word in the order of religious life in 1807, according to church minutes recording events in the early Congregational Church of Franklin, New York. Any violators of the covenants of the church were dealt with in a vigorous fashion . . . possibly patterning after the early Puritan methods. Many papers of complaints were on record.

Poor Mrs. F. had evidently strayed too far into forbidden pastures. These are the complaints lodged against her:

—Mrs. F. has been known to countenance card playing.

—She has indulged in the reading of novels on the Sabbath.

—She has been seen walking arm in arm with a man other than her husband.

—She has absented herself from the Lord's Day services.

Were those same churchfolk reincarnated and able to see the actions of today, Mrs. F.'s transgressions would appear extremely mild, indeed! — *Mrs. Agnes Ward, Franklin, New York.*

REPELLENT

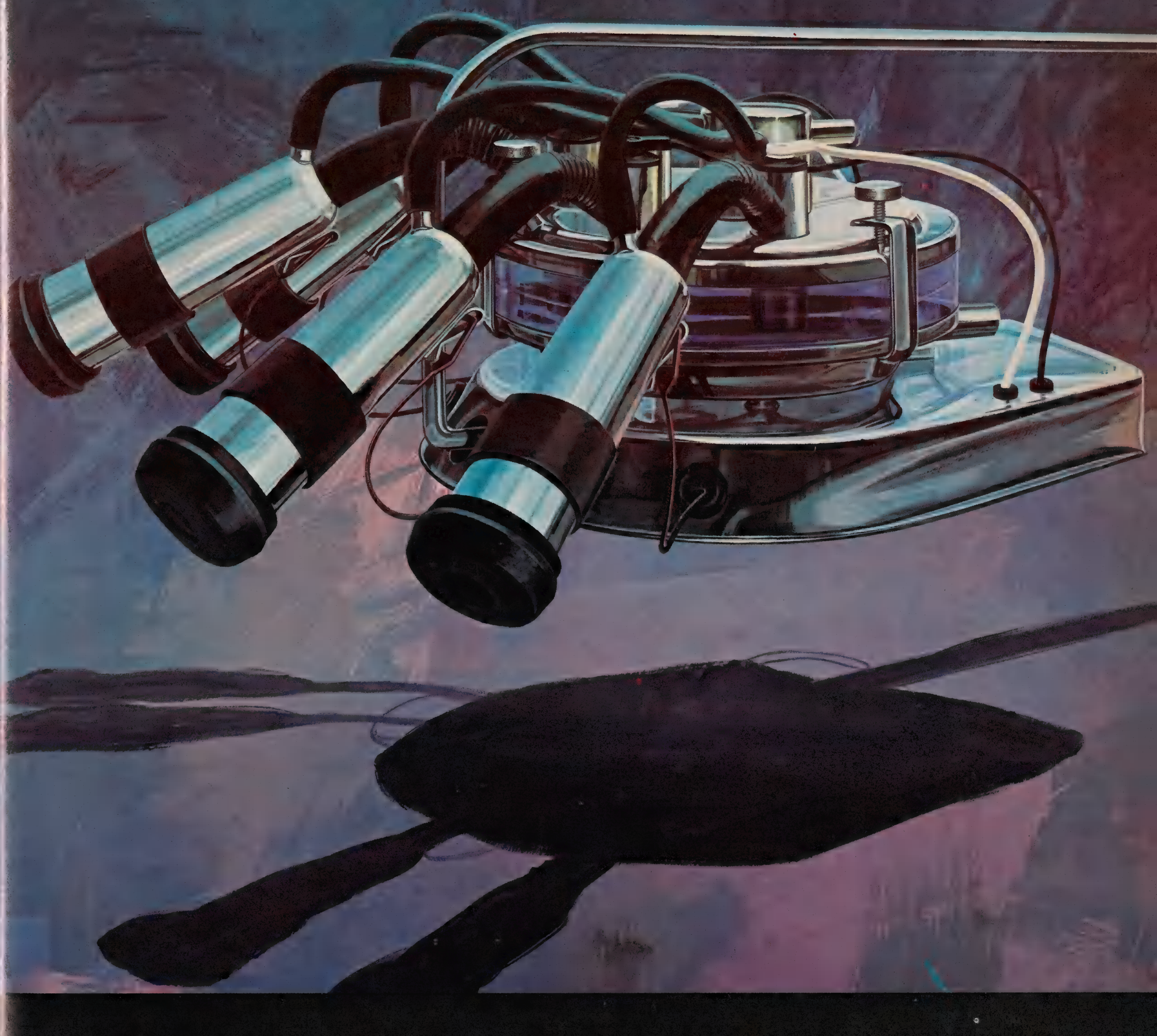
This past summer, just after the first raccoon invasion of my sweet corn, I tried using a commercial pet-repellent spray and found it did the job. To test the reliability, I started by spraying only isolated areas and found the raccoons avoided these areas and found the non-treated places. The following technique proved effective:

1. A tiny quick spot of spray on the stem near the husk (too much spray will bleach the husk and stem).

2. Spraying only every second or third plant was sufficient.

3. The spray remained effective for a week providing there was no unusual rainfall. — *Dr. Eugene Swanzey, Warwick, New York.*

The QTO Milker by Surge.



Ten years from now it may still be the most advanced milking machine you can buy.

You have to see it to believe it. QTO teat cups "remove themselves" automatically, one at a time, as each quarter of the cow's udder is milked out. Indicator lights tell the operator when each teat cup drops off and when the cow has given all of her milk.

This automated method of milking allows the operator to milk more cows in less time. The result is an increase in the number of pounds of milk produced per man hour. Surge QTO Milkers also safeguard herd health by encouraging proper milking procedure.

After 12 years of development and field testing, thousands of QTO units were installed in dairies throughout the U.S. and Canada during the past year. Every day new installations are proving again the dependability and benefits provided by this remarkable new automated milking system.

Ask your Surge dealer to show you a QTO installation in your area. For more facts about QTO systems, write for the free booklet titled—*The Surge QTO Milker Research Report.*

"You're a step ahead with Surge"

SURGE

Babson Bros. Co., 2100 S. York Road, Oak Brook, Illinois 60521

Northeast FARM EXPERIENCE



This storage at the Roberts Brothers Farm will hold 20,000 bushels of corn in a remodeled dairy barn. No electric power is available at the structure, so the elevator is powered by a hydraulic motor (note hoses from tractor).

CORN GROWERS

Brothers Orren and Lee Roberts of Medina, New York, grew 600 acres of corn in 1972. In a year when harvesting conditions were unusually bad, they were grateful for the "rice tires" on their combine with its four-row head. These tires are adapted for the tough going encountered in harvesting rice . . . and their extra traction and flotation came in handy.

Half of the corn is sold; the other half is fed to the 24,000 laying hens . . . and pullets for replacements . . . also a part of this diversified operation. Fruit growing (50 acres) rounds out the business.

In 1971, the Roberts averaged 110 bushels of dried shelled corn per acre on 600 acres. With this volume of corn to handle, they have installed two grain dryers . . . both fired by natural gas. The drying facility is not far from Medina so three-phase electric power is also available.

They have built storages in existing buildings . . . 30,000 bushels in one barn . . . 20,000 in another . . . 3,000 bushels near the poultry building. When harvested, corn is dried to a 12-percent moisture level so it will keep when stored in large bins without periodic aeration or moving. — *G.L.C*

PARTNERSHIP

Henry Wood, in partnership with sons Gary and Joe, operates a 420-acre dairy farm near Clayton (Jefferson County), New York. Another 200 acres of land are rented to supply more cropping acreage.

There are 110 milking cows in a stabling system having 108 free stalls for milkers . . . and the older section of the barn houses dry cows and young cattle in either stanchions or pens. The barn has been added to over the years so it now measures 377 feet long, plus a wing 64 feet long.

It's a "warm barn" in both the old and new sections. The free-stall addition has insulation (3.5 inches thick) in both sidewalls and ceiling. The Woods like a warm barn to work in, and the winds that rake the area come roaring straight out of the North Pole!

A double-four herringbone milking parlor has epoxy paint on the walls, but not in the pit. "That's a mistake we made," Henry comments. "We tried to cut corners a little when building it, and decided to go with a water-base exterior paint in the pit. So now we can't get it all off to replace it with epoxy . . . but it flakes off and gives an undesirable appearance."

Wet Walls

The Woods always hose the parlor walls before starting milking, having found that manure won't stick to the wet epoxy. Grain (20-percent-protein pellet) is fed in the parlor according to production. Owner-sampler DHIC records show a herd average of just over 14,000 pounds of milk per cow per year.

Some grain is also fed in the feed bunk in the free-stall area . . . and baled hay is dropped into the front ends of free stalls. "Hay is being fed at about eight pounds per cow per day to the milking herd," Henry reports. "Whatever is left by the cow goes back under her for bedding.

"Corn silage makes up the rest of the roughage ration . . . until it runs out, and then they'll go to eating a combination of hay and haylage." The Woods built their first silo (a 24×60) in 1971 . . . feeding dry hay as the only roughage previous to that time . . . and they plan another silo in 1973.

Heifers are bred the first time to beef bulls. Gary comments, "We've used big Holstein bulls from AI studs on first-calf heifers, but a 100-pound calf is just too much for them. We've tried it both ways . . . and decided to go with the beef-breed bull for smaller calves that first time around."

This partnership is involved in the "Keogh Plan" . . . a provision of federal law whereby a business can set aside funds (as a deductible expense) for the retirement plans of the partners. It can be complicated to set up, but details were worked out here by the family's insurance agent. — *G.L.C.*

LOTS OF VISITORS

Robert and Virginia Smith operate a dairy farm near Vergennes, Vermont. Bob had managed the farm for five years previous to the time when he bought it six years ago. A loan from the Farmers Home Administration got the Smiths underway in farming on their own.

They now own 197 acres, lease another 148 (of which 88 are tillable). The farm is close to the eastern shore of Lake Champlain, and Bob is concerned that someday houses may sprout up along that shore . . . only 1,500 feet away from the barn.

Pollution

"The problems of air pollution are becoming increasingly important to people," Bob comments, "and dairymen have to plan ahead to prevent it. We're pondering the relative merits of manure stackers, underground storage, and other possibilities. Three of our neighbors have stackers . . . don't spread any manure during the winter . . . and report favorably on this approach."

The Smiths like baled hay for roughage, but Bob comments, "The wet haying season of 1972 was enough to make **anyone** a believer in haylage!" He grew 60 acres of corn this year, stored it in a tilt-up concrete bunker silo measuring 32 ×100×8 feet deep. He has a 14 ×30 upright silo, but stores sawdust for bedding in it.

Vitamins

The 45 cows are routinely injected every three months with a mix of vitamins A, D, and E . . . 3 cc per cow. "We had been having trouble detecting heat," Bob reports, "and the shots have brought cows to a stronger heat, and I think they're settling better." A recent DHIC report shows average production to be 15,578 pounds of milk, 583 of butterfat.



Dairyman Bob Smith

The Smiths are friendly folks, and are enrolled in the official Vermont program to encourage non-farmers to visit designated farms. They have also invited people staying at a nearby state park to stop by at milking time.

As a result, they have a fascinating list of people who have signed their guest book . . . 10 pages filled this year. They find that an audience in the stanchion barn requires another 15 minutes to complete milking, but the cows don't seem to mind a bit. "I don't say much," Bob comments. "My wife and kids entertain the guests, and I milk."

Visitors range all the way from a government official from Africa to youngsters from New Jersey cities. It's a great exercise in public relations for agriculture in general, and dairy farming in particular. — *G.L.C.*

DAIRY FARM

Located on Ingersoll Road south of Fultonville, New York, is the 400-acre farm of Mortimer Dykeman (who rents 250 more acres). There are 150 milking cows here, 253 head of cattle in all.

A new freestall barn measuring 192×80 feet was built in May, 1970 . . . including 143 freestalls, a double-eight herringbone milking parlor, and a 30×65 upright silo. For temporary silage storage, Mort has used plastic-covered piles in past years, but the crop was too small in 1972 to require it.

"We had five piles in 1971," he comments, "and two piles in 1970 . . . each pile holding about 200 tons. To feed it, we transfer silage from the piles to a blower and put it in the upright silo. If stacking silage is to be a regular practice, then you'll need a concrete pad. We figure on spoilage loss in the piles at 5 percent . . . 50 tons if 1,000 tons are stored."

The work force here includes four men . . . Mort, herdsman John Sprague (who has worked for Mort for 16 years), his brother Ferris Sprague, and Terry Grandshaw. Three men normally milk, using 16 milker units, but two men can get the job done if necessary.

Roughage

Cows get seven to eight pounds of hay per cow each day (half first-cutting, rest second-cutting), plus about 60 pounds of corn silage per cow . . . all fed in the same bunk, but not blended together. Corn silage is fed twice a day, as is hay. Pelleted grain carrying 12-percent protein is also fed in the bunk at the rate of five pounds per cow daily, and a 22-percent-protein ration is fed in the milking parlor to each cow according to her level of milk production. LPS (liquid protein supplement) is available free choice.

"We used to feed all our grain in the parlor," Mort comments, "but we just weren't getting enough into them that way."

A plaque in the milkroom honors the cows and herd management at the Dykeman farm . . . a herd average of 16,009 pounds of milk, 597 of fat for 1972. There are also other plaques from Eastern AI, and from

(Continued on page 30)



The Hay Thing

The hot thing from New Idea to make your job a little easier.

Mows, conditions, windrows. Saves $435 to $770 as well.

Here's a haymaker that's non-stop and plug-free—even in long, rank, down hay that gets sickle bars "all choked up." And it makes good quality hay that's soft, palatable, rich in nutrients. Farmers who have used it say "You've got to see it to believe it. It bales better . . . it feeds better."

But it costs from $435 to $770 less than 7-foot mower-conditioners.

Visit your New Idea dealer. And take a look at the New Idea Hay Thing. You'll like its simple design—no knife sections to sharpen or replace. No guards to straighten.

The Hay Thing. Makes your job a little easier—and saves you a lot of money as well.

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Dairy . . . . .

(Continued from page 28)

the Dutchess County (New York) DHIA where Mort was a member before moving to Montgomery County. Included on the "honors board" is a sign with the wry observance that, "Refinancing is combining all your small debts into one backbreaking loan."

A separate heifer-raising facility (120×40 feet) here has 65 freestalls . . . the beds of which are floored with concrete. Each stall is 3.5 feet wide, and 7 feet long.

Young cattle get corn silage on a belt feeder, hay in racks, and grain with the corn silage. LPS is also available here free-choice. — *G.L.C.*

TWO BARNS

Richard Pominville operates a 140-cow dairy farm known as Quarry Road Farm near Middlebury, Vermont. Part of the herd is stabled in free stalls, part in tie stalls.

"If the barns were to burn, I'd go entirely free-stall for labor efficiency," he comments. "On the other hand, I've never milked a cow giving 100 pounds of milk a day while stabled in the free stalls. I can only get up to 12 pounds of grain a day through cows in the milking parlor . . . but I've had 'em eat as much as 50 pounds of grain a day in the tie stalls. To do this, I feed them twice a day in the parlor, and twice a day in the tie stalls." The rolling DHIA report shows a herd average of 16,655 pounds of milk, 604 of fat.

Cows in tie stalls get hay as part of the roughage ration, but cows in free stalls do not. The free-stall cows receive haylage and corn silage . . . haylage stored in three 20×60 uprights, and corn silage in a 35×140×12 horizontal storage. For efficient handling of the corn silage it is transferred to the uprights periodically. At this time a soybean supplement and urea are added to bring the protein level up to 14 percent on a dry matter basis. Ten hours will transfer a supply that will last from six to eight weeks.

Sawdust is used for bedding in the tie stalls, chewed-up bark in the free stalls. "The tie stalls are 4½ feet wide and 6 feet long," Dick reports, "but cows still step on their teats at times . . . something they don't do in free stalls."

Named Vermont's Outstanding Young Farmer in 1966, Dick and his wife continue contacts with other farm families met in that program. Not long ago, the Pominvilles hosted in their home one out of a group of six Australians involved in a Rotary-sponsored Group Study Exchange. — *G.L.C.*



Richard Pominville

Farm management figures

For many years, farm business management projects have been important features of extension programs in New York State. Here are figures from a series of years at 5-year intervals drawn from summaries prepared by Professor C. A. Bratton of the New York State College of Agriculture. These farmers don't represent the **average** for the State, but they are practical farm operators from various parts of New York who voluntarily participated in the project.

Some farms are included in all three years shown, but many are included in only one of the years. Thus, the comparisons between years shows **trends** in dairy farming in New York State, but does not trace changes on the **same farms.**

SELECTED FARM BUSINESS SUMMARY FACTORS
New York Dairy Farms, Selected Years 1961-1971

Item	1961	1966	1971
Number of farms	490	731	569
Financial Summary			
Average capital invested	$53,722	$76,996	$147,378
Total farm receipts	$22,505	$39,180	$ 64,682
Labor income per operator	$ 3,352	$ 7,522	$ 8,127*
Size of Business			
Number of cows	38	47	67
Pounds of milk sold	378,700	561,000	861,700
Man equivalent	1.8	1.8	2.2
Rates of Production			
Milk sold per cow	10,000	11,900	12,900
Tons hay per acre	2.6	2.5	2.7
Tons corn silage per acre	12	14	16
Labor Efficiency			
Cows per man	21	26	30
Pounds milk sold per man	210,400	311,700	391,700
Cost Control Factors			
Machinery cost per cow	$ 107	$ 132	$ 173
Machinery cost/cwt. milk	$ 1.07	$ 1.11	$ 1.34
Feed bought per cow	$ 125	$ 156	$ 194
Feed bought/cwt. milk	$ 1.25	$ 1.30	$ 1.51
% Feed is of milk receipts	28%	27%	24%
Capital Efficiency			
Total investment per man	$30,620	$44,760	$ 69,680
Total investment per cow	$ 1,450	$ 1,710	$ 2,290
Machinery investment/cow	$ 291	$ 375	$ 478
Total investment/cwt. milk	$ 15	$ 14	$ 18
Other			
Price per cwt. milk sold	$ 4.18	$ 4.91	$ 6.21
Acres hay & hay crop silage	57	88	155
Acres corn silage	11	24	51
Lime & fertilizer expense per crop acre	$ 7	$ 10	$ 13

*Labor income using a 7% interest charge on all capital.



The five staff members seated around the conference table in the American Hereford Association headquarters building, Hereford Drive, Kansas City, Missouri 64105, make up the core of the Association's new Livestock Business Advisory Services (LBAS) Division. Operating under the trade name BEEF-GRAIN CALL, these specialists will pool their expertise, backed by the Association's comprehensive data-gathering department, to provide instant advice and consultation to individual clients on matters relating directly to cattle, soybeans, grain, and livestock and grain financing. From left are Ernest Harms, financial; Sherman Levin, grain and soybean; William "Bill" Helming, general manager; Jerry Durnil, cattle availability; and Biff Charlton, market information.

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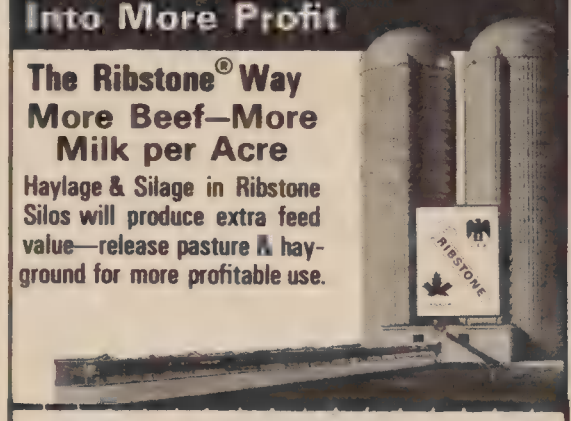
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Phone: 315/829 - 2305

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Roadside signs

LARGE volumes of farm products are sold at roadside markets in the Northeast, and signs help lead the customers to the cash registers. Professor Ransom Blakely of Purdue University has some suggestions for making those signs more effective.

Signs painted on ordinary plywood will need repainting every three years. A new type of plywood with a laminated-plastic surface has been used by one market operator for five years without repainting. Ask your sign painter for "Harborite" or similar boards.

Here's another trick for easy-to-paint signs that will look like those attractive brown and yellow signs you see at the entrances of state parks. Simply rout the letters into the surface of a thick plank, stain the whole plank a dark brown, then lay it flat and fill the channels left by the router with paint. When time comes for repainting, simply restain the signboard and refill the letters.

While you are reconditioning those signs, it would be a good time to put into practice some of the good suggestions that research has determined concerning choice of letters, words, symbols, etc.

1. **Avoid too many words.** Six to eight words are the most you can expect anyone driving by to read. People glance at signs, but must get the message without study. A potential customer driving by at 50 to 65 miles per hour has only three seconds to see your sign.

2. **Use symbols and pictures.** They are more efficient communicators than words. A horn of plenty is instantly recognized as a symbol of abundance . . . whereas words to do the same could go on and on.

3. **Avoid verticals.** Vertical lettering is fine if you were brought up in China, but our western culture teachs us to read from left to right. Our tests show horizontal signs are much easier to read than vertical ones.

4. **Avoid a "ladderback" sign** . . one having a separate signboard for each line of the sign, and open spaces in between. Background shows through the signs and confuses the reader, especially because the background to a passerby will appear to be moving relative to the sign. A simple sign containing the entire message is less confusing.

5. **Keep essential words at top.** The most important thing to the potential customer is the product or service you're offering. Remember that they start reading from **top** of the sign, so get the really important words and symbols up there in big size so they'll see them.

6. **Simplify your business name** if your own name is difficult to spell or pronounce. Our test viewers often struggled to put down the long, difficult names they remembered from the sign, but then could not tell what product or service was being offered!

Human ego being what it is, everyone is tempted to feature his own name in a sign. That's fine if you're a frustrated actor who always wanted to see his name on a marquee, but if you want to **sell farm produce**, remember that the customer is primarily interested in what you're selling.

7. **Avoid slogans.** As with names, many of our test viewers wrote down slogans (word for word), but had no idea of the product being offered for sale. Slogans are fine for newspaper ads, radio ads or point-of-sale displays, but the passing motorist just doesn't have time to read them and get the other more important information you want to convey to him.

8. **Use readable letters.** Simple renditions of Roman and Gothic letters are more readable than script or block lettering. Avoid mixing more than two styles of lettering in the sign. You want prospective customers to get the message . . . rather than be impressed by your artistic nature.

9. **To aid the customer** in identifying your market with advertisements, your signs should be rendered in the same letter styles used in your newspaper ads. For the same reason, it is a good idea to use the same combination of background colors and letter colors in all signs.

10. **Avoid overkill.** If there are too many signs at a market, they give the impression of a cheap, shoddy operation. People seem to be more conscious of such visual pollution than they were only a few years ago. It is more effective to have one good-sized sign which serves as a focal point.

11. **Advance signs are essential.** Again, don't overdo it! One sign anywhere from a half-mile to one mile from the market will make a better impression than a long row of "Burma Shave" signs.

Markets located off main highways will need signs placed at strategic intersections to direct customers to the market. Again, directional and advance signs should be rendered in the same colors and letter styles as the main market sign.

American Agriculturist, April, 1973

ALREADY PROVEN AS THE
BEST BROWN ROT CONTROL AVAILABLE
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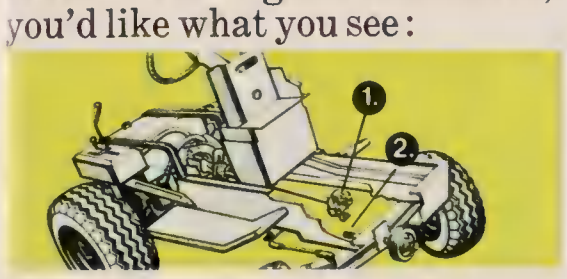
Systemic BENLATE is formulated as a 50% wettable powder and packed in 2-lb. bags. Your supplier of fruit fungicides has the full story on BENLATE; talk to him about this unique fungicide that in the past two years time has been universally accepted among stone fruit growers as the "new" standard for blossom blight/brown rot control. Do it today.

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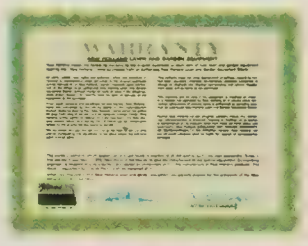
coupling. No more struggling to slide it underneath. The longer you own this tractor the more you'll appreciate this idea.

You'll also appreciate how easy we've made routine maintenance. The front hood and rear deck tilt up easily.

drostatic drive handle (one control for forward, reverse, stopping – without clutching) is right where your hand rests naturally. A hydraulic lever (optional on 12 hp. model) lets you raise and lower attachments effortlessly. It makes work almost a pleasure.



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Our warranty shows our confidence. No nonsense. No loopholes. It covers everything except tires, tubes and battery—*for one year.* That means engine, transmission, electrical system—the works.

Who's Sperry New Holland? We're a division of Sperry Rand. We've been doing business since 1895, mostly with farmers. The fact is, we're the country's #1 producer of specialized farm machinery. We build machines that work hard and last long, you can be sure of it.

Now look at our drive-over mower. You ride right over it to get it in position to connect the power



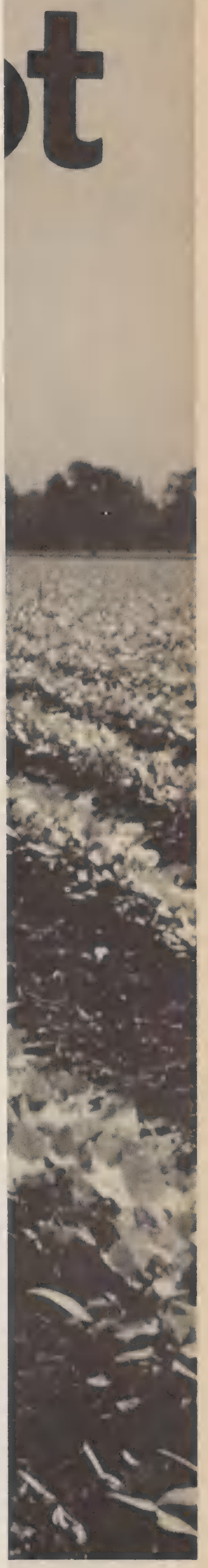
Easy riding begins with our step-thru platform. There's no big hump to climb over: You step aboard like a gentleman (or a lady). Sit down in the deluxe cushioned seat. The hy-



FREE BUYER'S GUIDE. For your copy, write to Dept. 145, Sperry New Holland, Division of Sperry Rand, New Holland, Pa. 17557. For the name of the New Holland dealer nearest you, phone toll free 800/447-4700. (In Ill. 800/322-4400.)

SPERRY NEW HOLLAND

Now is the best time to buy a New Holland garden tractor (or riding mower). ***Why?*** *Turn the page.*



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of Eli Lilly and Company • Indianapolis, U.S.A.

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because it works.

Roadside signs

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Ask your sign painter for "Harborite"

While you are reconditioning those signs, it would be a good time to put into practice some of the good suggestions that research has determined concerning choice of letters, words, symbols, etc.

1. **Avoid too many words.** Six to eight words are the most you can expect anyone driving by to read.

tering is fine if you were brought up in China, but our western culture teachs us to read from left to right. Our tests show horizontal signs are much easier to read than vertical ones.

4. **Avoid a "ladderback" sign** . . one having a separate signboard for each line of the sign, and open

will need signs placed at strategic intersections to direct customers to the market. Again, directional and advance signs should be rendered in the same colors and letter styles as the main market sign.

American Agriculturist, April, 1973

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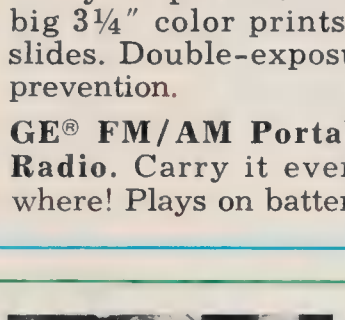
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Buy now and select a great gift!
See your New Holland dealer.

Buy a New Holland garden tractor (or riding mower) between April 2 and June 30, 1973 and we'll reward you with a bonus gift at no extra cost.



WHEN YOU BUY AN 8 HP TRACTOR, TAKE YOUR PICK HERE:

Mark III Shaver by Sperry Remington. Super-close shaves! Deluxe cord model has adjustable heads plus sideburn trimmer.

Kodak Instamatic® 20. The little camera that takes big pictures! Slips into your pocket. Takes big 3¼" color prints or slides. Double-exposure prevention.

GE® FM/AM Portable Radio. Carry it everywhere! Plays on batteries or house current. 3½-inch dynamic speaker. Earphone jack for personal listening.

Crescent® Tool Set. Professional quality! Has seventeen sockets, with ⅜" drive, rachet handle, wrench, pliers, more. All in steel carrying case.



BUY A 12 HP., 14 HP., OR 16 HP. MODEL AND SELECT ONE OF THESE:



Personal Calculator by Sperry Remington. An electronic marvel! Adds, subtracts, multiplies, divides, and flashes answers—up to six figures—on display panel. Works on four penlight batteries. Fits in your pocket. Complete with zip carrying case.

Quiet-riter™ Typewriter by Sperry Remington. For every family! The portable typewriter that gives office-machine performance.

GE® Digital Clock Radio. Wake up to music! FM/AM reception. Brightly lighted one-inch numbers. Sleep switch to shut off radio automatically.

Crescent® Tool Set. Ideal for the auto buff! Contains 50 pieces: wrenches, screwdrivers, ¼", ⅜", ½" square drives, spinner handle and extensions, spark plug socket.

RIDING MOWER BUYERS CHOOSE FROM THESE GIFTS:

Hot Comb™ by Sperry Remington. For today's dry, natural look! Gives you 20% more air flow. Includes brush and two combs.

GE® Spherical Radio. A fine AM battery radio—and a great conversation piece! The "Orbiter" model spins freely but weighted base always brings it upright. Can be wall-mounted.

Springfield® Weather Station Trio. Know what's happening—and what's coming! Thermometer, barometer, humidity meters mounted on walnut-grained panel. Adjustable for vertical or horizontal hanging.

Crescent® Socket Set. Makes many home and auto jobs easy! Handy ¼" drive set with 9 sockets, rachet handle, 2 extensions. Sturdy steel case.

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SPERRY NEW HOLLAND

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the recommended rate of Eptam® to your

Treflan as a tank-mix and enjoy a broader spectrum of control than you can get from either herbicide alone. For ragweed, apply dinitro as an at-cracking spray. Use Treflan as the base of your dry bean program and give your beans the upper hand.

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Because it works.

Roadside signs

LARGE volumes of farm products are sold at roadside m
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American Agriculturist, April, 1973

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Buy now and select a great gift!
See your New Holland dealer.

Buy a New Holland garden tractor (or riding mower) between April 2 and June 30, 1973 and we'll reward you with a bonus gift at no extra cost.

BUY A 12 HP., 14 HP., OR 16 HP. MODEL AND SELECT ONE OF THESE:



Personal Calculator by Sperry Remington. An electronic marvel! Adds, subtracts, multiplies, divides, and flashes answers—up to six figures—on display panel. Works on four penlight batteries. Fits in your pocket. Complete with zip carrying case.

Quiet-riter™ Typewriter by Sperry Remington. For every family! The portable typewriter that gives office-machine performance.

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shaves! Delux
sideburn trim

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prevention.

GE® FM/AM Radio. Carry
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Turn back for more reasons to buy New Holland. . .

DUPONT
REG. U.S. PAT. OFF.

Stop redroot all season.



Lambsquarters, too. Treflan® will stop these two underground and nail 25 other troublemaking weeds and grasses to boot. Right up to combining. No matter how dry it gets. If you need protection against nutgrass and quackgrass, add the recommended rate of Eptam® to your Treflan as a tank-mix and enjoy a broader spectrum of control than you can get from either herbicide alone. For ragweed, apply dinitro as an at-cracking spray. Use Treflan as the base of your dry bean program and give your beans the upper hand.

(Treflan®—trifluralin, Elanco)
(Eptam®—EPTC, Stauffer Chemical Company)

Treflan® ELANCO

ELANCO PRODUCTS [illegible] • A Division of Eli Lilly and Company • Indianapolis, U.S.A.

Because it works.



HANDY on the Farm



Screens – Expanded metal screens are used on the inside of the windows of the barn over pens and stalls to keep cattle from pushing out the glass. The windows tip out and are closed by hand clamps. An opening . . . box shaped of angle iron . . . is welded to the screen through which to reach out and hook the window.



Iron Horse – Several 15-gallon steel drums, mounted on a rack of welded pipe, protect and keep saddles handy. The rack can be shifted around on its two feet, which are pipes flat on the floor to which are welded posts supporting the one top rail. Other short pipes for arms are welded to the top rail . . . and the drums, with a hole in the bottom to slip over these, are spot-welded and rest on the arms.

Handy Feed – A pair of double-ended bolt snaps are used to hold the grain bucket on the wall of the riding horse's box stall. They are anchored with large, heavy staples.





Rack—The right tools and necessary materials are always in the truck with this pair of cabinets hung on the welded pipe rack. It also fits the stake pockets and can be lifted off of the pickup when necessary. The rack is handy for carrying ladders, lumber, pipe, combine sickles and other material of length. In the four cabinets are tool boxes and sets of various kinds of wrenches, drills, and such . . . also machinery repairs of an ordinary nature, and small hardware . . . such as nails, bolts, screws, washers, cotter pins and the like.

Feed Bin – A large-capacity, convenient hopper for feed is built of heavy plywood mounted in a framework of welded pipe. Flow is controlled by slide in the throat of the hopper under the storage bin. Flanges welded as feet on each leg can be bolted to the floor. A hinged cover is for filling.



ALLIS-CHALMERS

WE CAN HELP YOU GROW.

New Jersey

Columbus
Art's Repair Shop
Elmer
Roork's Farm Supply
Route #77
Flemington
John M. Saums & Sons, Inc.
Route 31

New York

Adams Center
Talcott Falls Tractor Sales
Route #11
Alexander
Alexander Equipment
Buffalo Street
Auburn
Main & Pinckney
RD #6 Mutton Hill Road
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R. Church & Sons, Inc.
Bangor
Debyah Farm Implement
Rt. 11 B
Bath
Lynn Burns
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Boonville
Denslow Equipment & Excavation Co.
Rt. 12
Bullville
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Don Howard
Cherry Valley
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Clymer
Dandee Service
Cobleskill
Cobleskill Welding Service, Inc.
107 North Grand Street
DeRuyter
H. W. Cook Farm Service
Albany Street
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E. E. Mathews & Son
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Earl Loades & Son
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Munnsville
Howard Landers
Newark
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515 North Main Street
Nichols
Thetga Farm Supply
9 Kirby Street, Box 8
North Cohocton
Robert Miller Co.
North Tonawanda
Maerten Motor Service
6869 Shawnee Road
Oneonta
Oneonta Tractor Sales, Inc.
180 East Street
Perry
Kelly's Garage
Perry Center
Richland
Mattison Farm Supply
Route #1
Rome
South Rome Equipment
R. D. #1
Route 26 South
Rossburg
Harold R. Rork
Schuylerville
Herry's Farm Equipment
R. D. #1
Seneca Falls
Salerno Farm Supply
R. D. #1
W. Chazy
K. V. Tractor Sales
Route 348
Wellsville
Paul F. Culbert & Sons

Pennsylvania

Athens
Athens Equipment Co.
RD #1 Route 220
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Nichols Farm Equipment
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Factoryville
Trail Implement Co.
Route 11
Honesdale
Marshall Machinery
R. D. #4
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Willard Benscoter, Inc.
R. D. #1
Mansfield
Canyon Implements, Inc.
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Mill Hall
Paul Dotterer Farm Equipment
R. D. #2
Pennsylvania Furnace
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THE HIGH TORQUE NINETY-THREE HORSE* FROM ALLIS-CHALMERS. IT'S CHANGING A LOT OF MINDS.

It's the Allis-Chalmers 200 LANDHANDLER Tractor. And hundreds of farmers moving up in horsepower are finding that it and its TRACTION BOOSTER system more than answer their power needs... and for a lot less money.

It's a tractor with everything it takes to put big power on the ground and keep it there. Power Director shifting that lets you shift on-the-go without clutching.

Power Shift rear wheels for quick and easy adjustment of rear tread widths. Roll shift front axle using hydrostatic power steering to change front tread width.

Plus full hydraulics, a rugged three-point hitch system and much more.

The 200 LANDHANDLER Tractor gives you the right combination of power, strength, speed and agility to get the job done.

See it at your Allis-Chalmers dealer. And while you're there, ask about Allis-Chalmers Credit Corporation on-the-spot financing. Allis-Chalmers, Agricultural Equipment Division, Milwaukee, Wisconsin 53201.



LANDHANDLER and TRACTION BOOSTER are Allis-Chalmers trademarks.

You get so much more for your money. Like:

1 An endurance-tested 301 cubic inch turbo-charged engine. Outperforms much larger naturally aspirated engines common to competitive models in this horsepower class. Turbocharged for efficiency and power.

2 Sturdy four pinion differential, big 17" diameter bull gears, 11½" ring gears, plus overbuilt shafts, bearings and other power-train components, to give this machine the guts to run at rated power all day.

3 Lift cylinders on the 200's three-point hitch are anchored well below the tractor axle. Increases leverage and brings lift capacity up to 4500 lbs. Draft arms raise to over 36", greatly improving transport clearance.

4 Flotation problems? The 200 is designed to let you use a second set of standard inside wheels or new clamp-on-the-axle duals with pressed steel wheels. Duals can be clamped directly to the axle for easier mounting or dismounting.

5 The 200 LANDHANDLER Tractor also offers outstanding operator comfort. The unique QCS (Quiet, Comfortable, Safe) cab combined with the finger-tip convenience of the operator's console, creates a high visibility, pleasant operating environment.

*93.6 Max observed PTO horsepower at rated engine speed.

WE CAN HELP YOU GROW.

ALLIS-CHALMERS

After 30,000 bales...

"The 336 takes a lot more hay and does it easier"

Fred Tillapaugh
Norwich, New York



"My 24T was only 2 years old when I traded, but I've never been sorry," says 130-cow dairyman Fred Tillapaugh after baling "better than 30,000 bales" with his 336.

"It has a lot more capacity—because of the increase in strokes (80 per minute, compared to 65 with the 24T). It takes in bigger windrows.

"But the kicker is the biggest advantage. It will kick all the bales back into the wagon, even going downhill. That distance control is essential. I can run the tractor right up where it should be."

He likes the hydraulic-drive on the ejector, too. "No pins to shear.

"I've noticed this baler's quite a bit quieter and smoother. I lay it to the strokes—like the difference between four cylinders and six.

"I like the hitch (equal-angle hitch, optional). That also contributes to quietness. I always used to shut the baler off on tight turns—now I wouldn't have to.

"Yes, I'd say 'The Strong Silent Type' is a pretty accurate description. I'm real satisfied."

After 10,000 bales...

"When bales leave this ejector, I know they go in the wagon"

Edwin Hadlock
Hammond, New York



"With our old kicker (a competitive model), we could get about two-thirds of a load," says Edwin Hadlock.

"But this ejector throws bales in an arc. We can get full loads now. We like the tilt and distance adjustments—on hillsides, for example, you can really play ball with the bales."

He likes the simplicity of the hydraulic-powered ejector, too. "Belts on our old one wore pretty badly. And sometimes when the hay was real thin or you were on the ends, they could wear through the strings.

"Capacity? It really swallowed up the hay. The pickup did a nice job. We like where the gauge wheel is positioned. It doesn't run over the hay.

"Those wide tires (optional) are a good thing on any piece of equipment. The baler sure rides better.

"I like the finer strokes (80 per minute). There aren't as many big wads going in—so we get more uniform bales. And the more uniform they are, the better they stay together."

Owners across the Northeast are sold on their new John Deere Balers. Check with your neighbors. Then check out The Strong Silent Type—the 336 and heavier-duty 346—at your dealer's. Check out just-as-modern John Deere Financing, too.

JOHN DEERE



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What's your farm power need—
a 14-176 hp Case or David Brown—
a new compact Uni-Loader
...you name it!

Your Case dealer answers it best!

Wise investment in farm power calls for maximum use of your available manpower and dollars. And there's just one given size and type that will do the job best for you.

Your Case dealer has the answer . . . 24 answers to be exact, one that's best for you.

In big-power farm tractors, he offers 7 Case models . . . up to 176 horses. The power, comfort and protection that fit *your* needs exactly.

He offers 4 quality-built David Brown tractors to round out your power needs. Powered right, geared right, priced right . . . from 41 to 65 hp.

In specialized power applications he offers 13 more. Loaders, backhoes, wheel tractors and crawlers. Including 2 farm-size 14-16 hp compacts.

And Uni-Loaders in 4 models. For saving time and your back, these highly maneuverable units will load, lift, carry, dump in tight quarters that a conventional tractor couldn't touch. The new model 1816, just being introduced, is a marvel of compactness and go-anywhere utility.

What could the right kind of Case power do for you? Your best answer will come from a demonstration on-the-job. No obligation, of course, so stop in at your Case dealer soon. J I Case Company, Racine Wisconsin 53404.

J I Case
A Tenneco Company

TENNECO®

case®

the tractor specialist

Buy, Rent or Lease from these Case Tractor Specialists

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GREENVILLE
Frost Farm Service, Inc.
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FAYETTE
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FORT ANN
South Hartford Eqpt. Co., Inc.
GOUVERNEUR
Jones Farm Supplies
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Center Rutland Service Center
PASSUMPSIC
McLarens, Inc.



SOYBEAN EXTRUDER

Last year, farmers in Seneca County, New York, grew nearly 3,000 acres of soybeans. Eighty acres of these were grown by John Dibble of Waterloo, on land he owns between the Nine Foot and Whiskey Hill roads in the Town of Junius. John uses his soybeans in rations for both feeder cattle and feeder lambs which he fattens.

Soybeans can be fed in raw form to cud-chewing animals whose remarkable rumens can utilize them. However, unprocessed soybeans contain considerable oil. Once ground for feed, they must be used within a short time, or the oil makes the feed rancid.

Raw soybeans also contain an enzyme called urease. When ground soybeans are fed with urea-containing feeds, this enzyme releases ammonia from the urea and the feed becomes unpalatable. Heat can "kill" this enzyme . . . probably "deactivate" is a better word.

Consequently, many soybean producers who wish to feed out their crops have become interested in on-the-farm processing . . . using extruding or roasting devices. John Dibble is one of these. He has recently purchased, on a trial basis, a portable extruder (tagged the "Brady Crop Cooker" by its Des Moines, Iowa, manufacturer). The device weighs in at 853 pounds, and sells for about $3,000.

Meat Guides

The "cooker" components include a hydraulically-operated intake auger with an adjustable intake slide equipped with a powerful magnet, an inlet hopper, the extrusion chamber itself, and a discharge auger for the processed material. The operating principle, as John puts it, "is something like that of an old-fashioned meat grinder."

As the beans drop from the hopper down into the extrusion chamber, they are forced under great pressure through an extruding cone. The pressure creates friction . . . and the friction creates heat. The operating pressure and resulting temperatures are adjustable. Normal temperature range is between 240 and 280 degrees Fahrenheit. It is recorded on a readily-visible temperature gauge.

The manufacturer suggests that its machine can be powered by tractors ranging from 55-hp to 180-hp at rpm's between 540 and 1,000. John Dibble uses a Minneapolis Moline G900 . . . rated at 97-hp, operating it at 1,000 rpm.

The processing produces a flaky-like meal, about which John reports: "The animals seem to like it. I've been selling some of it to a neighbor with dairy cows. At first, some of his cows were a little picky, but they quickly got used to it." In fact, John likes it himself. His wife added some to a meat loaf "and it tasted great."

I asked John how long it took to process the beans. "With my size tractor, I can do about 1,500 pounds per hour," he replied. "It varies with the amount of horsepower and the moisture of the beans. With wetter beans, you have to drop the temperature and the beans go through the machine slower.

"I'm not sure just what are the limits on moisture," he added. "I was out in the snow the other day. I wanted to get the beans off so I put them through the machine. They went slow, but they went through."

The extruding process removes some of the moisture from the beans. "In fact," John comments, "it gets a little steamy around where it's operating. The material comes out of the machine quite warm. You have to be sure and spread it out to cool. I didn't do that with the first batch, and it caramelized in the pile . . . probably losing some of its protein."

Stabilized

John reports that once the pressure is established, the operating temperature tends to stabilize, but quickly adds, "I wouldn't go away and leave it. I think you need to keep track of both the input and the temperature reading. Besides, if the tractor stalls you need to start it up immediately. The material is hot and could set up in the machine."

Since he has used the extruder for only a short time, John is still uncertain about his exact processing costs. "My labor and equipment costs can be determined, although they vary, depending on whether you're doing one ton or running all day. But I'm not sure what kind of maintenance costs may be involved."

Feed Value

How about the feeding value of the extruded meal? Regional extension dairy specialist Jesse Hannan, who works in John's area, has calculated its worth in relation to the cost of two feed sources that are considered "standards" for protein and energy . . . soybean oil meal and shelled corn. When corn is selling for $50, and soybean oil meal (44 percent) at $100 per ton, Jesse's figures show the farm-processed meal to be worth $92.20.

However, in a year like this, when soybean meal prices have skyrocketed, using a $60 value for shelled corn and a $200 price on soybean meal, Jesse reports the value of the resulting product climbs to $170.12.

In addition to his 400-acre farming operation, John Dibble shears sheep on a custom basis. "I did about 8,000 last year . . . all the way from Jamestown to Quebec." His plans, however, call for growing more soybeans in the future. "I may do some custom work with the machine. It all depends on how it works out." — *Bill Quinn.*

A MIRACLE OF GOLD

by Alice M. Swaim

Into my garden flew today,
Out of the dark and cold,
A tiny, rapturous torrent of song,
A miracle of gold.

Then all of life seemed suddenly
To pulse in that feathered throat,
As along the wind came back to me
One final golden note.

ROTOMIN
Outstanding Quality
SALT BLOCKS
For Sixty-five Years



10 lb. Blocks — Packed 6 Blocks per case.



4 lb. Blocks — Packed 15 Blocks per case.



Packed—5 Display Packages of 24 Spools to the case.

ROTO SALT COMPANY

Manufacturers of Compressed Salt Since 1904

Penn Yan, New York 14527

Your Right Decision

Look at the outstanding Funk's-G yield record in Project:200 and in your neighbors' fields. Then, make your profit-minded decision in favor of Funk's G-Hybrids. They have the capacity to produce unmatched, proven high yield results. Funk's-G is your right decision.

A. H. HOFFMAN SEEDS, INC.
Landisville, Pa. 17538

Dependable Hybrids from Dependable People

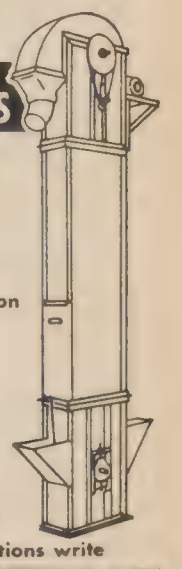
FUNK'S G HYBRID

Funk's is a Brand Name Numbers Identify Varieties
FUNK SEEDS INTERNATIONAL, INC.
International Headquarters, Bloomington, Illinois 61701

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Growing Walnuts

It was good to see an article about my favorite plant, the black walnut. I have spent the past five years trying to decipher the ways of this plant.

First, let me mention the most important factor, one that almost always is missing in "popular" articles about black walnuts:

You **cannot** allow a black walnut to dry out. It simply will not grow, even though it may still be good to eat.

Storing the nuts inside the house, barn, or garage over winter for spring planting will kill the seeds. This past spring, even knowing better, I tried planting about 800 nuts I had stored inside an unheated barn and **one** germinated!

Another factor is that the nuts **have** to experience cold temperatures; thus, keeping them damp inside the house, for instance, will not work either.

The best way to treat the nuts is to plant them in the fall after they fall off the trees. Incidentally, I have not seen the nuts turn yellow on the trees before they fall off, although some do; usually they retain their green-lime color. If it is dry, they may turn yellowish on the ground but if it is wet they rapidly turn a soggy black . . . I am talking about the outer husk, not the nut itself.

By planting the nuts in the fall, they have natural temperature and moisture conditions over winter and will survive very well. It is not necessary to husk the nuts; in fact, leaving the husks on provides a little fertilizer. Two years ago, one nut I must have accidentally discarded in a pile of husks that had been removed sprouted and now is over six feet tall . . . the fastest-growing tree of this type I have seen.

I read one place that it is a good idea to crack the hard shell of the nut before planting to help the sprouts emerge. This is not a good idea, and certainly is not necessary.

Your article mentioned using tin cans to cover the nuts to protect them from squirrels. Protection is necessary, and I use that method although the way you recommended is rather tedious. I simply plant the nut from one to five inches deep, push the can over it, then cut a hole in the upper end of the can so the sprout can get through, but a squirrel's paw cannot.

Also, I try not to leave jagged edges because I do not want to mutilate the animals . . . and sometimes children play in fields and could get cut. I use an ordinary hatchet, which is good for making a small hole in the ground and for making a hole in the inverted can.

Method

There is another method I use when time is short for planting individual nuts in the fall. I plant them very close together in trenches and cover the area with fine-mesh chicken wire. They can be planted almost side-by-side or several inches apart.

The wire prevents rodents from getting the nuts, allows the sprouts to emerge, and saves the trouble of planting individual "dead" nuts that do not germinate. The wire can be removed the following late spring or summer after sprouting, or it can be left for several years.

A 20-foot length of 18-inch wide wire can produce several hundred seedlings. One 3×1½-feet piece of wire produced 35 seedlings in my back yard; I removed the wire and seedlings after two years. The seedlings are relatively easy to transplant.

Advantage

One major advantage to this latter method is that if the seedlings are left in the bed for two years they become large enough to survive in competition with "weeds" when transplanted. Thus, less site preparation is needed for individual plants. Another advantage is the ease of applying fertilizer in beds rather than in individual plantings (especially considering that not all individual nuts germinate).

This letter could go on forever; there are more little "tricks" to planting the nuts, but I have mentioned some not usually known by the novice. If you should print this, I would be glad to exchange knowledge and ignorance about the tree with anybody who could care to write. In fact, if not too many people write I would be glad to send a couple of one-year seedlings next spring to correspondents just to help them get started.

Planting black walnuts is not a get-rich-quick scheme. I always joke with my skeptical friends by saying I expect to get rich in 90 years by planting black walnuts. But there are many reasons, some money-making and some altruistic, for planting this tree. I hope more people do, for whatever reasons. — *Roger Reger, 244 North Ellicott Street, Williamsville, New York 14221.*

$Ca(NO_3)_2$ is much more than a great fertilizer*

*Study[1] shows nitrate source of nitrogen can more than double tomato yield, require 30% less water.

Complete avoidance of ammonium desirable for maximum yield under intensive tomato cropping conditions

Kafkafi, Walerstein and Feigenbaum[1] studied the effect of two sources of nitrogen fertilizers, potassium nitrate and ammonium nitrate on the growth, nutrient uptake and water use efficiency of tomato under sand culture conditions.

Four treatments received the same basic fertilizer mix (potassium nitrate, calcium sulfate and triple superphosphate) *with four levels of ammonium nitrate solution (21%N) added: 0, 33, 66, and 100 ml/pot.*

Treatment No. 5 was a check on the effect of increased salinity and nitrogen in the absence of ammonium. After five months the fruits and plants were cut and dried.

They noted, ". . . The first dose of ammonium (treatment 2) was enough to cause a drastic depression of the uptake of magnesium and calcium . . . The reduction in Mg uptake caused by the presence of ammonium resulted in a severe retardation of plant growth."

The control treatment established that reduction in yield was not related to an increase in salinity or increased nitrogen, ". . . (The reduction) is therefore a specific effect of ammonium."

The nitrate treatment No. 1 (see chart) yielded 154% more than the highest NH_4 treatment, No. 4.



Nitrate+ Ammonium — All Nitrate

Results indicate ammonium "crowds out" vital uptake of nitrate

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990 lbs. per ton oxygen



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Viking Ship Calcium Nitrate

TREATMENT	1	2	3	4	5
Plot Composition	NO_3 NH_4	NO_3 NH_4	NO_3 NH_4	NO_3 NH_4	NO_3 NH_4
N from Nitrate . . .	6.5g —	6.5g —	6.5g —	6.5g —	13g —
N from NH_4NO_3 . . .	— —	4.4g 4.4g	8.7g 8.7g	13.2g 13.2g	
TOTAL N/SOURCE .	6.5g —	10.9g 4.4g	15.2g 8.7g	19.7g 13.2g	13g —
TOTAL N FED	6.5g	15.3g	23.9g	32.9g	13g
Conductivity	1.7mm	2.4mm	2.9mm	3.5mm	3.1mm
RESULTS					
K Uptake	3.23%	3.77%	4.10%	3.83%	3.75%
Ca Uptake	2.62%	1.67%	1.69%	1.79%	—
Mg Uptake	.19%	.11%	.08%	.10%	.18%
YIELD g/plant . . .	2550	1980	1200	1000	3430
Significant to:	.1%	.1%	.1%	.1%	.1%
WATER REQUIRED per gram of fruit . .	23cc	28cc	29cc	34cc	23cc
Significant to:	1.0%	1.0%	1.0%	1.0%	1.0%

Northeast FARM EXPERIENCE



The manure pit at the Ted King farm. Photo: Richard Guest.

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(Continued on page 42)

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Northeast FARM EXPERIENCE



The manure pit at the Ted King farm. Photo: Richard Guest.

MANURE STACKING

Theodore King of Athens (Greene County, New York), is using a pit measuring 100×40 feet beside his barn to store manure from 90 cows. The cast-in-place concrete pit is eight feet high on one side, four feet on the other. Sidewalls are eight inches thick, floor is six inches . . . with steel reinforcing in both.

Manure is pushed by tractor-mounted blade off a concrete lip into the pit . . . daily, unless frozen to the floor as it is a few days during the winter.

Two Tanks

Liquid drains from the pit into two tanks hooked in series . . . one holding 6,000 gallons, the other 4,000. These used tanks were purchased at extremely favorable prices from an oil company. Two bales of hay in the overflow corner strain solids from the liquid passing through toward the tanks.

"Since the big tanks were so economical, we went that direction," Ted comments. "However, if we had to pay the long price for them, we might have found a roof over the pit competitive in cost. That way, less rainwater would have to be handled . . . and the tanks could be much smaller. We may decide to roof it anyway someday."

Speaking of cost, the total tab was $6,000 for materials and labor (figured at $2.50 per hour). Because it was designated as an official experimental project, REAP funds were available to pick up part of the cost. Cornell agricultural engineering specialist Richard Guest, and technicians of the Soil Conservation Service, were involved in planning.

Ted is using clay as a floor for his freestalls, no other bedding. In October of 1972, he spread an accumulation of manure from the previous winter and summer.

Farm Tractor

A farm tractor, equipped with front-end bucket, is driven down a permanent ramp into the pit. Manure is brought out and dumped into a spreader. "The stuff was drier than we expected," Ted reports. "It stacked up well in the spreader . . . wasn't at all a slurry. The pile crusts over quickly, so there was very little odor during the time it was accumulating . . . certainly far less than is typical with liquid-filled pits. Flies didn't present a problem, either, because of the rapid crusting.

"We think of the system's advantages as involving more efficient use of manure as a plant food, the prevention of runoff associated with winter spreading, and the avoidance of the necessity to spread during a cold season that is tough on both man and machines." — *G.L.C.*



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(Continued on page 42)

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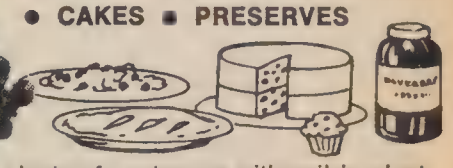
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Poultry . . . . .

(Continued from page 41)

are raised to 20 weeks of age, then transferred to the farm's laying houses.

The fertilized eggs produced here by a "closed flock" are destined for special purposes, not for table eggs. One of Bill's customers is Sterwin Laboratories at Millsboro, Delaware . . . a subsidiary of Sterling Drug Inc., and manufacturer of a number of vaccines. Included among them are poultry vaccines for Newcastle, bronchitis, fowl pox, etc. Some of the eggs produced at Sunrise Farm are used in this manufacturing.

Most are delivered as unincubated fertile eggs . . . and a few as embryonated eggs for research institutions having spent nine to ten days in an incubator to begin development of the embryo. This requires an incubator facility at Sunrise Farm . . . used also to hatch out chicks for breeder replacements.

SPF Flock

Only a few flocks qualify for producing eggs used for this purpose . . . especially developed to be free of a designated list of pathogens. Some hog products in the Midwest have developed SPF (specific pathogen free) breeding stock by removing piglets through cesarean section just before natural birth. The objectives in connection with the eggs mentioned are similar, but the methods are different.

"A special market for eggs such as ours must be developed in advance," Bill comments. "It takes some pretty technical work to develop disease-free birds, and then constant vigilance to maintain it. Isolation is also important . . . which explains the distance between houses."

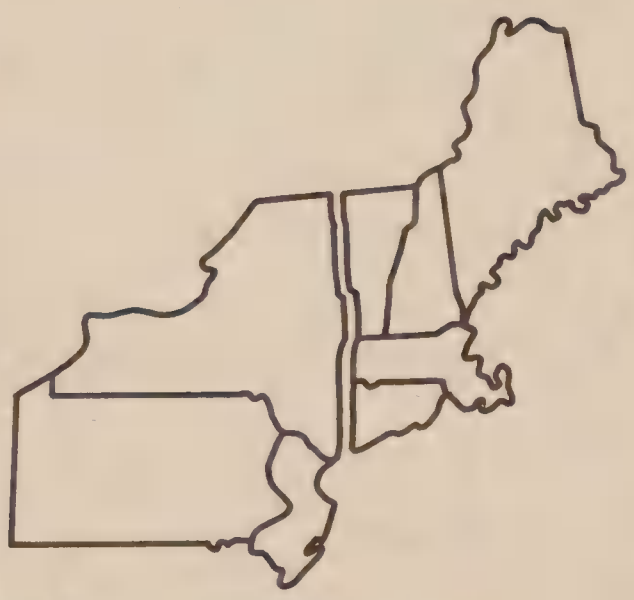
Three years ago, there was a fine Holstein herd producing milk at Sunrise Farm. It has been dispersed, but the Lashers continue to raise 70 head of heifer calves to two years of age. Bill buys cattle from purebred herds . . . direct from owners, or at herd dispersals. Rounding out farm enterprises are 80 acres of grain corn, 25 of wheat, and the rest of the cropland in hay.

Sunrise Farm, Inc. is technically the correct farm name. Bill and his wife, Evelyn, plus son William, Jr., are stockholders in the family corporation. The Lashers have found incorporation to offer several advantages . . . one of which involves estate planning. The Lashers also have two daughters.

With a view worth a bundle of money all by itself . . . and 500 acres offering open space, clean air, beautiful scenery, and tranquility . . . there are obviously reasons for Sunrise Farm to attract potential buyers. "Sure," Bill says, "I've received some tempting offers. But I was raised on this farm, and my mother and I had to take over its operation when I was 16. There's just too much of my life invested here to make those big offers very attractive."

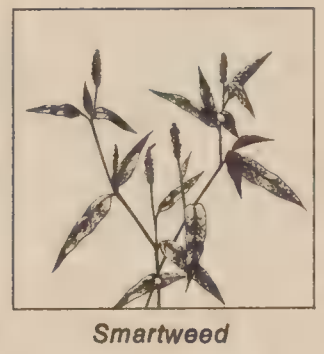
I looked westward to the brooding mountains, topped with a flaming halo cast by the setting sun, and reflected upon the almost-reverent bonds that link many farm families to the land upon which they have shed their blood, sweat and tears. — *G.L.C.*

Around here you've got a tough combination of grasses and broadleaf weeds to control.




Crabgrass


Fall Panicum


Smartweed


The Foxtails


Common Ragweed


Lambsquarters

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Matthew Story has remodeled his home to include a giant native stone double fireplace.

DIVERSIFIED

Matthew Story operates a 1,000-acre diversified farm near Catskill (Greene County), New York . . . 300 acres of which are tillable. Another 100 tillable acres are rented.

About 150 acres of vegetables are grown, most of which are sold through the roadside stand near the intersection of state highways 23A and 32. At the season's peak, seven people are needed to staff the stand. The Storys have six children, and hire other employees of high school age . . . plus one full-time man.

"We have an abundance of customers," Matt reports, "and could sell more produce than we have." Sweet corn is the big acreage vegetable crop at 85 acres, followed by potatoes (20), and about eight acres of snap beans.

A wide variety of other vegetables is also grown to provide a broad spectrum of choices to customers. Nearly two acres of strawberries are grown . . . each plot picked for the stand the first year, then opened to U-pick harvest the second year.

Long Season

The stand is open from the middle of June to Thanksgiving time in November. Most of the produce is purchased by city people who are in the area for summer vacations, or passing through on the way to the New York metropolitan area. Pro-

duce prices can be held steady at this retail level, and generally run a bit above those at supermarkets.

A dairy of 45 cows adds to year-round income; nearly half of the milk is sold retail at the farm, priced for the last few years at 75 cents per gallon (20 cents a quart). Roughage is all home-grown, and Matt sells nearly 100 tons of hay each year. Enough grain corn is produced to also sell some each year.

To round out income-earning activities, the farm work force cuts and sells 100 cords of wood each year. These cords are full 4×4×8 feet for measuring purposes, but are cut into fireplace lengths before sale. Prices have been $25 per cord ($15 for a half-cord) sawed and delivered within a radius of 10 miles.

The Story family, and its employees, find plenty to do at all times. The growing and selling season is especially hectic . . . for instance, Matt plants sweet corn at 7 to 10-day intervals from April to July 4. The combination of enterprises assures enough gainful work for everyone involved throughout the year, surely one secret of success on any farm. — *G.L.C.*

DAIRY HELPER

Raymond Aasen, who lives on the Jerry Smith Road near Ludlowville, New York, switched his herd some time back from stanchions to free-stalls. Everything proceeded well, but Ray found that the change increased the difficulty of detecting heat . . . and the average calving interval lengthened.

Finally, he got a "spotter bull" . . . the first one a black Angus. When the animal got hard to get along with, he was replaced by the present red Angus.

For $25 to $50, a bull can be surgically altered so that he cannot breed a cow, but the operation does not diminish his interest in trying! The bull works full-time at detecting heat, and Ray can then easily spot cows to put on the list for service by the AI inseminator. Another bull . . . not altered . . . runs with the herd for a month out of each year to inseminate cows that don't conceive easily by artificial service.

Raymond reports that these steps have reduced the herd's average calving interval by a full month.

"When choosing a 'spy bull,' pick one from the smaller breeds," Ray advises. "And get one that is good-natured and highly motivated." — *G.L.C.*

SUCCESS FORMULA

How many times have you heard, "You can't get started in farming today," or "You must have money behind you to get anywhere?" To that, Gene Willey of Shoreham, Vermont says, "Hogwash."

Perhaps today's young couple has to take a different approach than Gene and Anita did twenty years ago. But the basic principles to gain one's objective in life are as applicable now as they were then.

Gene and Anita's "Cream Hill Farm" encompasses 1,000 acres. Their new freestall, herringbone-parlor setup is an efficient production plant for milking and caring for 170 milkers. There's a complete line of modern equipment to harvest the 200 acres of corn and 40,000 bales of hay needed to feed the dairy cows and 200 head of replacements.

The Elfac analysis page puts the Willeys' capital investment at $425,000 . . . but Gene says there was a time when he couldn't afford a milking machine! With one Guernsey cow, a registered bull calf and a borrowed horse, Gene and Anita started farming in 1950 on his parents' small New Hampshire hill farm.

They worked out at various jobs to supplement their meager farm income . . . Anita by secretarial work, and Gene as a farmhand, logger and construction worker. But they had one objective in mind, a family farm business of their own.

An article he read in 1948 as a high school senior set Gene on a definite path of approach to farming. Author Bernard Baruch stated in this article that anyone can obtain business success and financial reward if he pursues the following rule: Singleness of purpose, i.e., that every thought and all energies must be directed toward making a business venture a success, and personal concerns and desires must be put aside.

Gene comments, "If aspiring young farmers today are willing to follow this formula, they too can fulfill their dreams."

CORN GROWER

Funk Seeds reports that John Rogaleski of Hatfield, Massachusetts won the state championship of the company-sponsored Project:200.

John spring plows his corn land. His total fertilizer program included 186 pounds of nitrogen, 108 pounds of phosphate and 92 pounds of potash, actual, per acre. He used 600 pounds of 20-10-10 as a preplant and 200 pounds of 8-24-16 as a starter per acre. Fifty pounds of the nitrogen was applied as a sidedressing.

The Funk's G-4350 was planted on May 26 in 36-inch rows. Seeding rate was 25,000 kernels per acre. A combination herbicide was applied at planting.

At harvest on October 27, plant population was 24,000 plants per acre and the moisture level of the corn was 29 percent. This was converted to No. 2 corn in calculating the winning yield of 133.86 bushels per acre.

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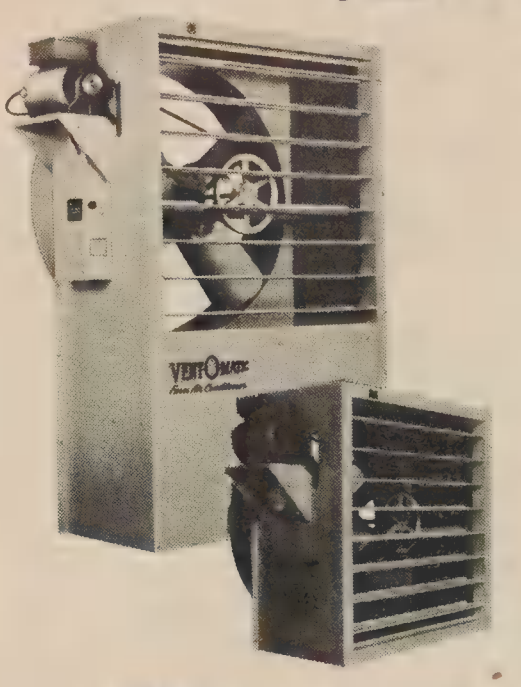
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Dollar Guide

LETTUCE BOYCOTT being promoted by United Farm Workers Union involves jurisdictional dispute between UFW and Teamsters' Union. About 95 percent of supermarket lettuce is picked by union labor (90 percent Teamsters and 5 percent UFW). Secondary boycott is attempt to force farmers to deliver their workers to UFW without a vote by employees.

Boycott activities to hit peak in early April.

COMMON MARKETING AGENCY (CMA), formed by Northeast Dairy Cooperative Federation (NEDCO) and Dairylea Cooperative, scheduled to begin operation April 1 in Order 2 (N.Y.-N.J.) area. Some details yet to work out, but principle accepted by the two cooperatives.

BEEF PRODUCER faces generally bright prospects for next few years, at least to 1975. World beef demand rising, as is per capita consumption.

U.S. beef cow herd is increasing in numbers rapidly, however ... up by 6 percent during calendar 1972.

FERTILIZER distributors having problems filling all their orders on time. Demand is extra strong ... better be sure you've lined up your supply early.

Gasoline supplies will also be tight this summer ... local shortages predicted in many areas.

REFUNDS of state gasoline tax and sales tax on utilities, fuel oil and motor oil are available to New York farmers. Forms MT-390 and ST-142 are available at Extension offices.

PRODUCTION CREDIT ASSOCIATIONS can now join commercial banks in jointly participating in loans to farmers. First such loans made recently in New Mexico.

FARMLAND VALUES in U.S. up by 10 percent for year ended November 1, 1972. Northeast has shown increase of 9 percent for each of three years 1970-72, ranging from 13 percent in New Jersey to 6 percent in Pennsylvania.

LABOR CONTRACT between Garden State Service Cooperative and Puerto Rico calls for guaranteed hourly wage of $1.85, plus two-way transport for all workers completing contracts. Fringes include off-job insurance (medical and life) for workers to be cost-shared between employer and employee, as well as free housing. All workers covered by workmen's compensation.

CLASS I BASE PLANS are in effect in three federal order areas: Puget Sound, Georgia, and Nebraska-Western Iowa. Inland Empire producers voted plan down in recent referendum.

GRAPE GROWERS are alarmed at apparent boom in grape-acreage expansion ... fearing a bust in future years when supply may overwhelm demand. Have a home for future production lined up before planting grapes.

APPLE GROWERS in New York will vote about June on whether to increase assessments for product promotion from: 3¢/bu. to 5¢ on fresh apples, 4¢/cwt. to 6¢ on processed, 2¢/cwt. to 4¢ on juice apples.

EMPLOYER is responsible for assuring that seasonal workers hired by independent farm labor contractors are paid federal minimum wage ... so says U.S. Court of Appeals in New Orleans.

HIGH GRAIN COSTS are likely to be temporary, and dairy farmers should move cautiously when considering a major expansion of home-grown grain acreage. Government farm programs are all pointed toward massive increase in national feed-grain tonnage in '73.

NET FARM INCOME in U.S. predicted by USDA to be slightly lower in 1973 compared to '72. Gross income up some, but expenses will be up as much or more.

Accent on Spring

by Marcia Pimentel

Looking out my kitchen window, I see purple and yellow crocuses, daffodils in bud and an ever-so-slight greening of the honeysuckle that borders the garden. To me, these are sure signs that Spring is finally coming to the Northeast.

Perhaps I have a touch of spring fever, but I feel like being more venturesome and trying new recipes. A change of flavors and textures seems in order. Just waiting to be used are the many spring foods — fresh chives and parsley, rhubarb and asparagus, tiny new potatoes and for meat, a change to lamb. Perhaps these menus and recipes will give you some ideas or remind you of recipes you have forgotten.



Photo: American Lamb Council

There's something about lamb that's elegant and that makes us think of spring. This we're all ready to do when the calendar tells us April has arrived!

— Spring Luncheon —

Individual Asparagus Souffles with Cheese Sauce*
Tossed Green Salad **French Dressing**
Rhubarb Crisp*

— April Dinner —

Roast Shoulder of Lamb*
Buttered New Potatoes **Broccoli with Mock Hollandaise***
Chive Cottage Cheese, Carrot Strips, Sweet Pickles
Popovers*
Daffodil Pie*

Either fresh or frozen asparagus can be used for these individual Asparagus Souffles. If you are selecting fresh asparagus, look for spears that have closed, compact tips. The rich green color should extend over most of the spear. The bottom of the spear, which may be light green or almost white, should be removed before cooking, since it will never soften enough to be edible.

I think you will enjoy this souffle, served in individual dishes. It is delicious with or without the cheese sauce.

INDIVIDUAL ASPARAGUS SOUFFLES
with Cheese Sauce

½ lb. asparagus or
1 10 oz. package frozen asparagus
¼ cup butter
¼ cup flour
½ teaspoon salt
1½ cups milk
6 eggs, separated
1½ cups Cheese Sauce

Set oven at 325° F. Lightly grease six 10 oz. Pyrex baking dishes. Cook asparagus, drain well and chop. (This can be done ahead of time.)

Melt butter in a saucepan; stir in flour and salt. Gradually add milk and cook, stirring constantly, until mixture thickens. Add asparagus and remove from heat.

In a small bowl beat egg yolks slightly. Gradually add some of the hot asparagus mixture to eggs. Then pour the warmed egg mixture into the asparagus, stirring constantly. Set this aside.

In a large bowl beat egg whites just until stiff peaks form. Gently fold the asparagus mixture into egg whites, stirring only to mix. Do not beat, or you will lose volume from the eggs. Spoon into baking cups.

Bake about 30 minutes, or until puffy and golden brown. To test for doneness, insert a knife into center. If knife comes out clean, the souffle is done. Serve immediately; makes six generous servings. If desired, serve with Cheese Sauce.

CHEESE SAUCE

1 can condensed Cheddar cheese soup
¼ teaspoon prepared mustard
¼ to ½ cup milk

Place soup in saucepan and stir until smooth; add mustard and ¼ cup milk. Heat, stirring constantly, until sauce comes to a boil. If you prefer a thinner sauce, add a little more milk, stirring after each addition to make smooth. Yield: 1½ cups sauce.

Come April, I begin to yearn for that special taste of fresh rhubarb. Next to a simple sauce served with the meat course or for dessert, we like this Rhubarb Crisp. Once my garden rhubarb is in ample supply, I improvise a little by adding half a package of strawberry flavored gelatine with the sugar and flour that is sprinkled over the rhubarb. This gives a brightness of color, while the strawberry-rhubarb flavor combination makes a pleasant variation.

RHUBARB CRISP

5 cups rhubarb, cubed
¾ cup sugar
2 tablespoons flour
¼ teaspoon salt

Lightly butter an 8×8 or 7×11-inch baking dish. Place rhubarb in pan. Mix sugar, flour and salt. Sprinkle over rhubarb.

Make a topping by mixing together:

1 cup rolled oats
½ cup brown sugar
½ teaspoon cinnamon
¼ cup melted butter

Sprinkle topping over rhubarb. Bake in 375° oven for 35 to 45 minutes, or until rhubarb is soft when tested with a fork. Serve warm with vanilla ice cream or whipped cream. Serves 6.

This recipe for Roast Shoulder of Lamb is a spring suggestion from the American Lamb Council.

ROAST SHOULDER OF LAMB

4 medium onions, thinly sliced
4 cloves garlic, thinly sliced
4 bay leaves, crushed
1 cup olive or salad oil
¼ cup lemon juice
3 tablespoons chopped parsley
1½ teaspoons salt
1½ teaspoons ground oregano
¾ teaspoon freshly ground pepper
1 precarved lamb shoulder roast (about 4 pounds)

Combine all ingredients and mix well. Tie roast and place in dish; spoon marinade over roast and refrigerate 24 hours. Turn roast frequently, basting with marinade.

Place lamb on rack in shallow roasting pan. Roast at 325° 30 to 35 minutes per pound. Baste frequently with marinade, reserving marinaded onion slices.

After 1 to 1½ hours, remove roast from oven and cover top with marinaded onions. Return roast to oven and continue roasting another hour, or until meat thermometer registers 170° for medium doneness. Remove string and serve with additional pan gravy. Makes 4 to 6 servings.

Over the years, I have learned to rely on this Mock Hollandaise recipe because it holds without curdling, yet has the piquant flavor of the more temperamental hollandaise. Incidentally, it is equally good on spring asparagus.

MOCK HOLLANDAISE SAUCE

4 tablespoons butter
3 tablespoons flour
1 cup milk
2 egg yolks, slightly beaten
2 tablespoons lemon juice
½ teaspoon salt
Pepper
Few grains cayenne

Melt butter in top of double boiler over direct heat, or a heavy bottomed sausepan may also be used. Add flour and mix well. Stir in milk and cook, stirring constantly until thickened.

Add a little of the hot mixture to the egg yolks and blend. Place double boiler over hot water or the saucepan over very low flame and cook about 2 minutes longer, stirring gently. This insures the eggs will be cooked and thickened. Add lemon juice and other seasons. Yield: 1 cup sauce.

Popovers may seem too mysterious to make, but if you follow directions carefully, you will be successful. Having the oven up to temperature and the pans lightly greased before you start to mix will get you off to the right start.

POPOVERS

1 cup sifted all-purpose flour
½ teaspoon salt
2 eggs
1 cup milk

Preheat oven to 425° and grease 8 custard cups. Deep muffin tins can also be used. Sift flour with salt into a medium bowl. Add eggs and milk and beat mixture until smooth, using a rotary beater or electric mixer. This will take about 1 minute of vigorous mixing.

Pour batter into greased cups, filling only one-half full. Place cups on a large cookie sheet or jelly roll pan to help getting them in and out of oven. Bake for 30 minutes, then lower oven temperature to 375° and continue baking until popovers are a golden brown, about 15 minutes longer. Popovers should at least double in volume and be light and tender. They can be served plain or with butter.

Light, airy and with a little fruit tartness, this chiffon pie is especially suited to top off an April dinner.

DAFFODIL PIE

4 medium eggs, separated
6 tablespoons sugar
¼ teaspoon salt
¼ cup lemon juice (seeded but unstrained)
½ cup boiling water
4 tablespoons lemon flavored gelatine
1 tablespoon grated lemon rind
¼ teaspoon cream of tartar
6 tablespoons sugar
Whipped cream
1 cup well drained mandarin oranges
8 inch pie shell

Mix egg yolks, sugar, salt and lemon juice in a saucepan. Cook over **very** low heat or use a double boiler. Stir constantly until mixture thickens and coats a metal spoon. Remove from heat and set aside.

Stir boiling water into gelatine to completely dissolve. Now with a rotary or electric beater, beat the thickened lemon mixture into gelatine. Add rind.

Make a meringue of the egg whites, cream of tartar and remaining 6 tablespoons sugar. Carefully fold the egg-gelatine mixture into meringue. Pile filling into cooled pie shell and refrigerate. Serve with whipped cream and garnish with mandarin orange sections. Six generous servings.

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We have arranged with the publishers to supply directly to our readers, postpaid, any of the following books at the prices listed. Please allow three weeks for delivery.

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ANIMAL SANITATION AND DISEASE CONTROL:	R. R. Dykstra	11.65
ANIMAL SCIENCE:	M. E. Ensminger (1969 edition)	19.75
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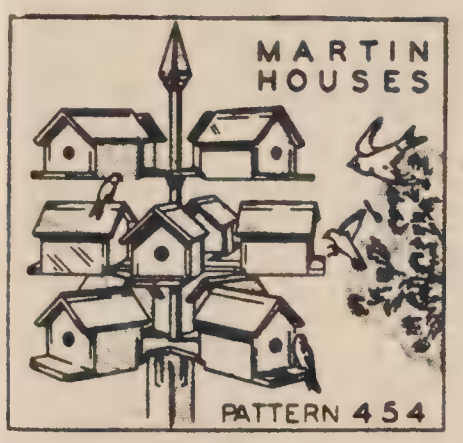
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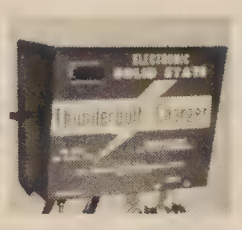


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The Prize Winners!

by Home Editor Augusta Chapman

Judging 137 casserole recipes is really quite an undertaking, as Alberta Shackelton, former Foods Editor of American Agriculturist, and I found out! Alberta spent 11 hours going over the recipes and picking out the ones she considered best... then I tested them.

I've enjoyed making the casseroles from your recipes and have added many of them to my own file to use from time to time. Selecting the three winners was the hard part! After much consultation (Editor Gordon Conklin and Publisher Jim Hall were also "in" on this), we have chosen the following three prize winners —

First, **Sea Food Casserole**, submitted by Mrs. Vernard A. Quint, 27 Tappan St., Farmington, N.H. 03835. Prize, $25.00.

Second, **"More" Casserole for 12,** submitted by Mrs. Jean Steele, 15 Bieselin Rd., Bellport, L.I., N. Y. 11713. Prize $10.00.

Third, **Chicken Casserole,** submitted by Ms. Mary Elizabeth Wesloske, R.D. 2, Box 212, Sussex, N. J. 07461. Prize, $5.00.

Congratulatory letters and checks have been mailed to these winners. We hope you will enjoy making these casseroles too. As space permits, we will print quite a few of the other recipes received and which we have found delicious.

First Prize Winner

About her recipe, Mrs. Quint says, "One day, several years ago, when I was planning for a board meeting of Women's Clubs, I was wondering what I could serve them for luncheon. Living on the coast of Maine at the time, I thought it appropriate to serve sea food.

Lobster being quite expensive, I decided to make a casserole, using other kinds of sea food and finally came up with the following recipe. I have served it many times since that day and always receive compliments on it."

SEA FOOD CASSEROLE

1 pound fresh, thick haddock fillet
1 pound fresh scallops
1 can crab meat (any size)
1 can shrimp (any size)
1 small onion
1 can cream of mushroom soup
1 cup thin to medium white sauce
Salt and pepper
Seasoned croutons

Steam fillet until tender and flake in large pieces; saute scallops in small amount of butter until brown. Combine all sea food in buttered casserole. Cut onion fine and sprinkle over sea food.

Make white sauce and add soup, salt and pepper; when hot, pour over sea food mixture. Cover with seasoned croutons and bake at 350° until bubbling and lightly browned.

Serve with potato chips, your favorite salad and beverage. Apple pie with cheese makes a nice dessert. Should serve eight.

Editor's Note: This casserole is still expensive, even without lobster. Since it is original and very good, we felt it deserved first prize. I used frozen haddock and scallops and had to pay 99 cents for the haddock, $3.19 for the scallops, and $1.19 for a can of crab meat. I had small shrimp on hand from a supermarket "special" and used those.

A final note – The casserole may have served eight women at Mrs. Quint's luncheon, but I feel it will serve five or six people with usual hearty appetites.

Large Casserole For A Group

Mrs. Jean Steele writes, "I found this recipe when on a trip to Granville, Ohio, visiting friends. The First Presbyterian Church Women's Association put out a cook book, and this was in it. The original recipe supposedly was created by a bachelor French professor at U.C.L.A.

"I have found it great to serve buffet style with tossed green salad and hot rolls. Also, it can be prepared in advance, so I have more time with my guests."

"MORE" CASSEROLE FOR 12

Garlic
⅓ cup olive oil
1 green pepper, chopped
1 Spanish onion, chopped
1 teaspoon chopped parsley or flakes
2 pounds round or chuck steak, ground
1 medium-size can sliced mushrooms
1 medium-size can pimientos, chopped
1 can pitted ripe olives (7½ ozs.), chopped
1 pound spaghetti, cooked and cut into ½ to 1-inch pieces
1 pkg. frozen whole kernel corn,
1 pkg. frozen peas
1 large can tomatoes
½ pound cheddar cheese, grated
Seasonings to taste (salt, pepper, oregano, basil, celery salt)

Rub large skillet with garlic. Add olive oil, chopped pepper, onion and parsley. Cook until soft. Add meat and mushrooms; cook until meat is browned. Add tomatoes and simmer about a half hour.

Cook spaghetti in salted water, drain and chop. Cook corn and peas. Put pimientos, ripe olives, spaghetti, corn and peas in a large bowl. Add meat mixture and season to taste. Add half of the cheese and mix well.

Put into one very large casserole or two smaller-size casseroles, topping with rest of the cheese. Heat oven to 375° and bake 45 minutes to 1 hour.

Note: Casserole can be stored in refrigerator one or two days before baking.

Third-Place Winner

Mary Elizabeth Wesloske says, "This chicken casserole is original. I developed it, using leftovers and experimenting until it was the way we liked it. I sometimes use cream of mushroom soup instead of the celery, and you may want to add a little salt and pepper."

CHICKEN CASSEROLE

2 cups macaroni
1 tablespoon butter
¼ cup chopped onion
2 cans cream of celery soup
1 cup light cream
3 cups cooked, diced chicken or turkey
½ cup sliced, cooked carrots
½ cup cooked frozen peas
½ cup bread crumbs
3 tablespoons melted butter
¼ teaspoon poultry seasoning

Cook macaroni as directed on package and drain. Melt 1 tablespoon butter; add onion and cook about 5 minutes. Blend in soup and cream, stirring until smooth. Add chicken, carrots and peas; simmer over low heat for about 5 minutes.

Combine macaroni with chicken and vegetables; place in greased 2-quart casserole. Combine bread crumbs, 3 tablespoons butter and poultry seasoning. Sprinkle over casserole. Bake in 375° oven 20 to 30 minutes, or until hot and bubbly. Serves 4 to 6.

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Mirrored in beautiful Auke Lake, a few miles from Juneau, are Mendenhall Glacier and the snow covered mountains behind it.

This summer

Travel in the United States

This is the year we cruise the entire length of the Inside Passage on our Alaska Holiday and enjoy a delightful visit to Jasper National Park in the heart of the Canadian Rockies. Dates for this trip are **June 17-July 6,** just when days are longest in the Northlands.

Our cruise ship is the **SS Prince George,** and we'll be aboard her for eight wonderful days while we sail through 2,000 miles of truly spectacular scenery — towering snow-capped mountains, lush forests, gleaming fjords, ice-blue glaciers inching their way to the sea, interesting wildlife, and fishing villages. Many people think this is one of the most beautiful boat trips to be found anywhere in the world.

After a stop in **Prince Rupert,** British Columbia's most northern seaport, our next port of call is **Ketchikan,** first Alaskan city on the cruise. Ketchikan claims to be the "Salmon Capital of the World," and the world's largest collection of totem poles stands there.

Juneau is known as America's most scenic capital city. A sightseeing tour will take us around the city and out to beautiful Mendenhall Glacier and Auke Lake with its famous log chapel. **Skagway,** the town with a past that's really a past, relives its gay history each time a cruise ship comes into port! And it's here we board the White Pass & Yukon narrow-gauge train for the breathtaking trip to Lake Bennett, along the Trail of '98.

Cruising southward on the Inside Passage, we stop at **Wrangell** where we're greeted with a dockside band concert. Wrangell is one of the oldest communities in southeastern Alaska, being founded in 1834 by the Russian Baron Wrangell.

On our way to and from Alaska, we'll visit both **Vancouver** and **Victoria.** Vancouver is called Canada's most beautiful city, and world-famous Butchart Gardens is one of Victoria's loveliest sights.

In **Jasper Park** you will see many of the finest peaks in the entire Rocky Mountain Range. Sightseeing here will include Lac Beauvert, Pyramid and Patricia Lakes, Maligne Canyon, the Whistler Mountain Ski area, and one of the best known scenic attractions on the American Continent, the Glacier of the Angel on Mt. Edith Cavell. Our home in Jasper will be the beautiful Jasper Park Lodge. Send for the itinerary today and plan to join our Alaska-Canadian Rockies Holiday this summer.

Heart o' the West Holiday

Again in 1973, we are repeating our very popular **Heart o' the West Holiday,** which includes the very

(Continued from page 59)

Gordon Conklin, Editor
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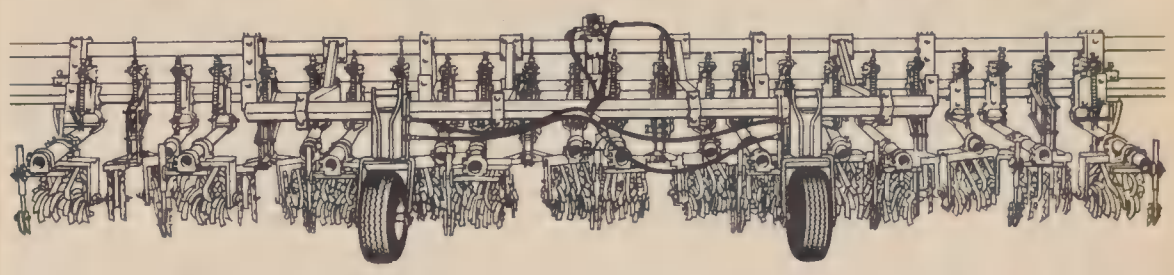
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Garden Talk

by George and Katy Abraham

Terrariums Are Back

Growing plants in glass jars, bottles and plastic dishes is back in style again. During the last half of the Nineteenth Century, bottle gardening was big, and plants were grown in ornate, glass-enclosed cases. After a few years, the idea faded out, but it's riding on a new wave of popularity.

Credit for terrarium culture is usually given to an Englishman named Ward, who discovered the idea by accident. To observe the emergence of a sphinx moth from a chrysalis, he had placed it in moist soil in a closed bottle.

Soon he was amazed to see a seedling fern growing in the bottle. He watched it grow and flourish in the bottle for nearly four years, during which time not one drop of water was added nor the cover removed! The plants finally died when the lid rusted through.

A terrarium is simply a transparent container, such as goldfish bowl, brandy snifter, candy jar or any glass receptacle useful for growing plants indoors. Terrariums are a welcome addition because they make you feel rested and give the feeling of having a breath of outdoors in your own living room.

April is a good month to take a trip to the woods and gather material such as tiny evergreen seedlings, odd bits of bark, lichens, sticks, etc., which might make your outdoor picture more attractive indoors.

Naked Pumpkin Seeds

A rapidly growing item in the health food trade is shelled pumpkin seeds. Supermarkets and drug stores are carrying this item in the "health food" section. We understand that most of the pumpkin seeds sold in this country are grown in Mexico and shelled by hand. We thought there was a machine for hulling, but have learned there is none — a person could make a fortune if he solved this problem.

But do we really need a hulling machine for pumpkin seeds? Offered this year for the first time is the Lady Godiva naked-seeded pumpkin. You'll find it listed on the cover of **Harris Seed Catalog.** Lady Godiva grows naked or hull-less seeds which are delightful to eat.

The pumpkin is round, yellowish, and weighs about 6 pounds. It is not fit to eat, but the seeds are. Inside each pumpkin are scads of seeds which make a tasty snack and eliminate the tiresome work of shelling.

In case you're wondering how the naked pumpkin seed got the name of "Lady Godiva," we'll jog your memory. The Lady was the wife of Leofric, Earl of Mercia, one of the most powerful and wealthy Earls of England (about 1050). Lady Godiva was noted for her charities and had a soft spot in her heart for poor, tax-ridden people. She promised her husband she'd ride naked on a horse down the streets of Coventry if he would give tax relief to the town's people. She wore nothing but a big smile on her face!

Everyone was supposed to keep his windows closed until noon, so they couldn't see the naked lady. One man, a tailor named Thomas, sneaked a peek and was supposed to have become blind as a result. From this story comes the term, "Peeping Tom."

Wouldn't it be nice if we had a Lady Godiva today to give us some tax relief? We have some near-naked ladies walking on the streets, but they don't help with our taxes!!

Air Pollution And Aging

The "ecology" thing has been worked to death, and now nobody worries about it any more. We shouldn't forget, however, that the quality of the air we breathe is as important for our health as the quality of the food we eat or the water we drink. Air may seem to be limitless, and only in the past decade have we become increasingly aware that the air which surrounds us can be polluted to the level where it can endanger our health.

A report from the University of Illinois shows that air pollution affects the aging process in humans. Nitrogen dioxide and ozone in polluted air may accelerate the aging process by affecting fatty acids in the body. The answer to much of our pollution problem is trees — and more trees, but trees cannot do it alone. Man still must be on guard.

AA Garden Clinic

A reader writes, "We want to put in a couple of Junipers around our house, but were advised there are two kinds. Please tell us what they are."

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DAIRY FARM with 67 cow capacity, 250 acres. Nice 12 room house, 60 stanchion barn with pipeline milker. Located east of Cortland. Offered at $110,000 bare, $165,000 stocked and equipped. Many other farm listings. For your sake and ours, buy or sell your property through us. Need more listings, farms 50+ cows, acreage of all kinds, rural residences. North East Appraisals, Inc., Appraisals - Sales, Ithaca, N.Y. 607/273-7300. Evenings and weekends for appointment only - Bob Wright 607/749-2844, Jim Davis 607/257-3574, Ross Gerbasi 607/257-2136.

450 ACRE CENTURY FARM, 3 homes, modern 90 tie barn, est. maple producer, terrific setting in Delaware County. Once in a lifetime offering, $262,500. T. L. Wright Realty, Schoharie, N.Y. 12157. 518/295-8547.

NEW YORK STATE FARMS are our specialty. Conventional dairy, free stall and combination, also cash crop farms, all sizes, 50 to 1,000 acres, low taxes and good schools. 70A with large basement barn, silo, cleaner; nearly new 3 bedroom Cape Cod, excellent location, only $55,000.00. 140A, large barn, 30 x 64 pole barn, 4 bedroom house, only $27,500. 250A, 73 on pipeline, 3 silos, extra good 4-5 bedroom house, tenant house, only $139,500. 500A, barn for 100 free stalls, two 20 x 60 Harvestores, 2 other basement barns, very good brick house, trailer, only $195,000. 1000A, 40 x 220 steel barn, many other buildings, 16 miles Syracuse, priced to sell. 950A, 5 houses, grain storage, best of soil. Try us. Write, please give phone number. Mal-Tut Real Estate, 9 Court St., Auburn, N.Y. 13021.

(NO. 1) NEW YORK Finger Lakes - 200 alfalfa acres, 70 cow barn, pipeline, 2 big silos. Housing 2 families. (No. 2) Southeast Lewis County, 100 alfalfa acres, 42 cow barn, silo, storage, stocked and equipped. 3 bedroom house; $80,000.00. (No. 3) South Jefferson County, 600 acres. Fully stocked and equipped. 150 cows, plus young stock. 2 barns, 4 silos, 2 houses. "Big milk check." Have others, all sizes. Charles J. Graham Real Estate, Liverpool, N.Y. 13088. Phone 315/457-3380.

WOODRIDGE, N.Y. - Complete veal farm for 280 calves, fully equipped. Terrific deal for experienced party. Call Mr. A. Dorfman at 914/782-8623.

FINGER LAKES FARMS - 1100 acre dairy-crop farm. 140 free stalls in insulated barn. Double five parlor, much more, $380,000. 237 acre dairy farm. 70 stalls, space for more. 5 bedroom house. $90,000. 50 acre fruit farm with cold storage and road side sales. 14 room house, $62,500. 148 acre village-edge dairy farm, public water, gravel bank, 49 tie dairy barn, 18 x 60 silo, heifer barn, bulk tank, 4 bedroom home. A good operation. $82,500, bare. Call or write Ralph Real Estate, 147 Genesee St., Auburn N.Y. 13021. 315/253-6278.

RENT WITH OPTION 235 acre dairy near 2 cities. 170 tillable grows good corn, 100 cow free stall barn, parlor, 2 silos, bunker. Excellent 9-room Colonial w/2 fireplaces. Available upon transfer of title. Also 12 x 60 mobile home - $10,000 year rent payable advance. 100 Stanchion pipeline barn, 1,085 gal. bulk tank, cleaner, unloader. 536 acres, 300 tillable, 2 ponds, 2 miles frontage. 7 room home, 1½ baths oil furnace. Also 9-room home, bath, central heat, $156,000 bare, stock and equipment extra. 45 free stalls with room for 45 more in newer barn w/parlor, silo, cement floor bunker. Excellent 9-room Colonial, fireplace, baseboard heat, pine kitchen, $86,000. Wimple, Realtors, Sloansville, N.Y. 12160. 518/875-6355.

FARMS FOR SALE: Dairy farms stocked and equipped, acreages as follows: 500 acres, 306 acres, 300 acres, 126 acres, several bare farms available. Located St. Lawrence Valley region - WJ or FL Murray-Licensed Real Estate Salesmen, PO Box 8, Potsdam, N.Y. - phone 315/265-3740 (call collect).

ST. LAWRENCE COUNTY - near Potsdam, N.Y. 180 acre farm, 80 tillable, 80 pasture, 20 woods. Equipment building, 50 free stall barn, drilled well, creek, new 4-bedroom ranch, low taxes, right of way to river - $42,700.00. Owner - 315/389-4786.

FAMILY SIZE FARM, 100 acres, stocked and equipped, good 8 room home, 25 milkers plus young stock, new tractor, near Cobleskill, N.Y. $85,000. T. L. Wright Realty, Schoharie, N.Y. 12157. 518/295-8547.

GOOD VALUE in New York farm properties. We suggest that you check with us before buying anywhere in Northern New York. Taxes are low and schools excellent. Farm specialists for 18 years. Here is just a sample - 500 acre free stall for 116, new stable, new double-six parlor, fine machinery, 165 head, two homes, stanchion barn for young stock, excellent location, $220,000 complete. 165 tillable acres, 41 stanchion barn, cleaner, dumping station, silo, full machinery, 42 Holsteins, three bedroom home, good location, complete only $65,000, a rare opportunity. 292 acres, 230 tillable high quality, 53 stanchions, dumping station, 43 head, nice machinery, four bedrooms, rented tenant house, $99,000 complete. 355 acres, 160 tillable, tile drained, extensive river frontage, 48 stanchions, dumping station, 60 head, machinery, four bedrooms, $100,000. 247 acres, 197 tillable, high quality land, 69 stanchion barn with pipeline, silo, cleaner, four bedrooms, good location, $88,800, $30,800 down. 150 acres, excellent river running through farm, cleaner, 60 head, nice machinery, attractive home, $100,000 complete. 142 acres, 80 tillable, 36 stanchions, bulk tank, 40 head, machinery, four bedrooms, good area, $55,000, $20,000 down. 260 acres, cut 20,000 bales 1972, 87 stanchions, dumping station, new silo, 86 Holsteins, full machinery, large home plus furnished mobile home, $99,000 complete. 212 acres, 37 stanchions, bulk tank, silo, 40 milkers, machinery, six bedrooms, reported $30,000 income, $60,000 complete. 398 acres, 44 stanchions, silo, 44 milkers, three bedrooms, cleaner, milking equipment, mow conveyor, $71,000. 410 acres, 250 tillable, machinery, 54 head, 60 stanchions, cleaner, dumping station, silo, four bedrooms, $82,500 complete. Good 50 milker operation, high quality land, dairyman's herd, excellent location, cleaner, machinery, five bedrooms, $90,000 complete. 210 acres, 71 stanchions, cleaner, silo, 80 head, nice four bedroom home, all in good condition, full machinery, $110,000. New 54 milker operation, steel tie stable, steel hay barn, dumping station, cleaner, trench silo, machinery, good herd, 70 head, home completely re-done, clean, $105,000. Buying bare or equipped contact Brisson Real Estate, RD 2, Massena, N.Y. 13662, 315-769-9387 or 315-764-0896.

360 DEEDED TIOGA COUNTY acres. Highly productive creek valley operating dairy farm, 2 miles frontage on 3 roads! 73 stanchion barn with attached ell, big hay mows, 2 silos, Grade A milkhouse, 625 bulk tank, 50 acre bottomland, 60 acre new alfalfa seeding, good fenced pasture, big Early American farmhouse good condition. Action priced $98,-000, owner financing. 220 acre stocked, equipped Registered Holstein dairy: 40 good milkers, good line of equipment, tools. 120 tillable level acres, 42 tie stall barn, 3 silos w/unloaders. Good productive farm complete $145,000. To buy - sell call Tom Mullen, United Farm Agency, Waverly, N.Y. 607/565-9861.

EXECUTIVE BRICK HOME! Barn, 125 acres! Syracuse approx. half mile! Fireplace, family room, wall-to-wall carpets, high ceiling basement! 1500' on highway! Thruway handy! $69,000 - hurry! La Rock Realty, Martville, N.Y. 13111. 315/564-5400 or Don Holdridge 315/947-5357 appointment only.

150 ACRE DAIRY FARM near Cobleskill, neat 30 tie pipeline barn, 2 silos, very fine 9 room home, big meadows and excellent crop land. Well worth a look at $88,000. T. L. Wright Realty, Schoharie, N.Y. 12157. 518/-295-8547.

FARMS FOR RENT

LARGE DAIRY FARM, milking parlor, Plainfield, Conn. 1-203/393-2217, 1-203/564-7276 evenings.

BEEF FARM for rent. 200+ acres; 92 acres good meadow, balance pasture and woods. Reasonable. No house. Delaware County, N.Y. Write Box 369-DM, Ithaca, N.Y. 14850.

GOOD FARM FOR RENT. Good barn and tenant house. 150 tillable acres. Box 275, Hillsdale, N.Y. 12529.

FARMS WANTED

BUYERS WAITING! For good dairy farms within 250 miles of New York City. Bare or stocked. We can finance. Also, interested in recreation land, timber or development land. Make your offer now! Our company also buys direct. Barmann's Realty Sales, Inc., R. D. #4, Middletown, New York. Phone 914-343-1108.

WANTED ALL KINDS OF FARMS, vacant land and timber lots. New York and Pennsylvania locations. W. W. Werts, Real Estate, Johnson City, New York 13790.

QUALIFIED BUYERS WAITING - dairy farms, others. Wimple, Realtors, Sloansville, N.Y. 12160. 518/875-6355.

WANT FOR MYSELF, large house and farm anywhere. Also large acreage. The cheaper the better. Owners please contact Paul Boughton, Realtor, 1½ Dolson Ave., Middletown, N.Y. 10940. 914/342-1418.

ONE-MAN FARMS needed, anywhere in East, not over $50,000 bare. Good soil, fair buildings. Instant cash. Broker, Box 430, Unadilla, N.Y. 13849.

QUALIFIED BUYERS FOR farms, country homes, large tracts land - Massachusetts, Connecticut. Robert Collester, established 1912, 816 Armory St., Springfield, Mass. 01107.

WANTED - DAIRY FARM, owner financed, bare or complete, under $70,000 bare. Box 369-DJ, Ithaca, N.Y. 14850.

FARMS WITHIN 150 MILES from New York City. Also any land for development. We are buyers. A. Dorfman, Rte. 17M, Monroe, N.Y. 10950. P.O. Box 701 - phone 914/782-8623.

WANTED: FARMS, ACREAGE in New England. Top price paid. Send details, price: H. Brower, 20 Wachusett Road, Chestnut Hill, Mass. 02167. Phone 617/969-3461.

WANTED: DAIRY FARMS bare or stocked. Qualified buyers waiting. Paul Bouman, Salesman. Phone 914/895-2817 or Sheldon Ocko Associates, Inc. Phone 914/374-5611. P.O. Box 178, Route 17 M, New Hampton, New York 10958.

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GINSENG GROWS TON acre, worth $25.00 pound - growing details 25¢. Hunting case, watches, movements, bezels. Woods, Box 1079, Lebanon, Missouri 65536.

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GREENHOUSE - 8' x 12'. Build yourself for less than $50.00. 5 different plans - $2.00. Werth's, Box 1902GC, Cedar Rapids, Iowa 52406.

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QUALITY GRADED HAY & Straw, all kinds shipped or trucked anywhere. Desmond Hay Service, Box #666, Spring Lake, N.J. Tel. (201) 449-1888.

HAY FOR SALE - all grades delivered from central New York. When writing give telephone number or call 518/994-5111. Snyder Petroleum, Inc., PPO Box 227, Fort Plain, N.Y. 13339.

ALFALFA-TIMOTHY HAY delivered anywhere. Russell's Hay Service, Box 71, East Durham, N.Y. 12423. Phone 518/634-2591.

STRAW AND ALL grades of hay delivered subject to inspection. For more information call person-to-person after 6:00 PM 518/994-1144. Christman's Exchange, Inc., RD2, Fort Plain, N.Y. 13339.

100 TONS HAY, 16 tons straw. 6185 Ridge, Lockport - 716/433-2470.

HAY & STRAW for sale. Alfred Cobb, Waterloo, New York 13165. Phone 315/789-2660.

HELP WANTED

PROFESSIONAL A.I. TECHNICIAN—Eastern is looking for qualified men who want a challenging agricultural career providing an important and needed service to dairymen in the Northeast. The job offers working out-of-doors with farm people, above average income, liberal benefits, and transportation. Write or call: Eastern A.I. Coop., Inc., Box 518, Ithaca, New York 14850. Phone (607) 272-3660.

MARRIED COUPLE, 45-55 - man to do outside work - lawns, vegetable and flower gardens and general maintenance work. Woman to get husband's meal and keep own quarters clean. Must be reliable, able and willing to work. Recent references with correct addresses required. Fully furnished separate quarters with electricity, heat and telephone. Private home SE New Hampshire. Good pay - permanent if satisfactory. Box 369-CX, Ithaca, N.Y. 14850.

YOUNG MAN for general farm work. Room and board provided. Sydney J. Peters, Callicoon, N.Y. 12723.

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FARMS WANTED

FARMS WANTED

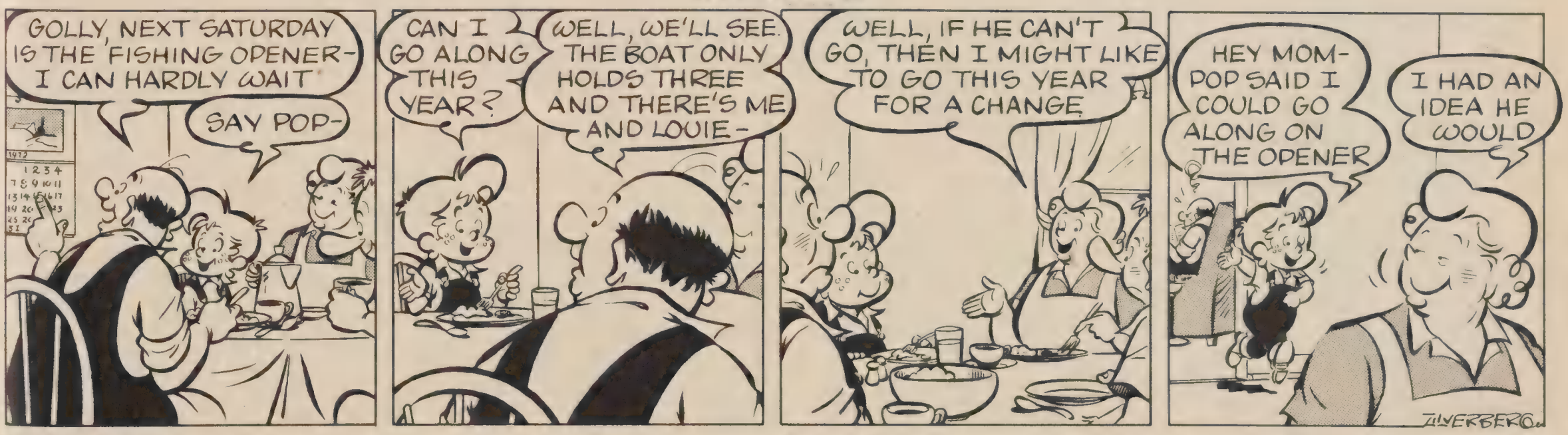
FARMS NEEDED IMMEDIATELY

We have many dairymen URGENTLY in need of farms for this spring as well as next fall. Both bare and stocked. What do you have to offer? Interested mostly in N.Y.S. properties south of the Thruway and within 250 miles of N.Y. City. Also have buyers for recreation land. Our company also buys direct.

Barmann's Realty Sales, Inc.

R. D. #4, MIDDLETOWN, N.Y. 10940
PHONE (914) 343-1108

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HELP WANTED

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EXTRACTED NATURAL HONEY - clover, fallflower or buckwheat. 5 lbs. $4.00; three 5's $11.00; six 5's $19.00. Postpaid to 3rd zone. We use stainless steel extractors and tanks. Lang Apiaries, 8448 N.Y. Rt. 77, Gasport, N.Y. 14067.

LANDSCAPING SUPPLIES

FOR SALE: Limestone rocks, all sizes for rock gardens and landscaping. Dudley Mathes, 15717 E. Lee Rd., Holley, N.Y. 14470. Phone 716/638-6696.

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WANTED - LAND for campsite. State location and price. Box 161, Middlefield, Conn. 06455.

MISCELLANEOUS

COUNTRY STORE CATALOG, 35¢. Bargains galore! Foxes-AG, Box 914, Memphis, Tenn. 38101.

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STOP RUSTY WATER from ruining wash, staining fixtures. Proven filter keeps water free from rust, sand, odors, tastes, other impurities. Low cost, reusable replacements. 30 day trial offer. Write Samcor, 836-Q West 79th, Minneapolis, Minn. 55420.

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PRICING/SELLING HANDBOOKS - 10,000 Antiques, $1.00: 3,000 Bottles, $3.95; 1500 Fruit Jars $1.95. Detailed pictures/illustrations. All 3 books, $4.95 postpaid. Guaranteed. Harvest Publishers, Box 3015-LC, Milwaukee, Wisc. 53218.

35 STAINLESS STEEL double-edge blades, guaranteed for 10 shaves or more. $2.00. Pierpont Mart, P.O. Box 221, Fairhaven Sta., New Haven, Conn. 06513. Free trial blade.

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WANTED: ALLIS-CHALMERS roto balers. Write Brice Creesy, Andover, Ohio 44003.

AUTOMATED GRAIN DRYING and handling systems, bucket elevators, grain storage bins. For professional help in picking the right size, style for your needs call 716/532-4016. Charles Van Etten, Gowanda, N.Y. 14070.

SPLIT GIANT ROCKS economically! Terrific 2000 degree kerosene torch, 99 practical uses. Destroys stumps, sprays, dries concrete. 800,000 users. Free literature. Sine, NY3, Quakertown. Pa. 18951.

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MILK TANKS - we sell, buy, lease - new or used. Modern Dairy Equipment, Inc., Box 125, Arcade, N.Y. 14009. Phone 716/492-1693.

WORTHINGTON TRACTOR SALVAGE has guaranteed used parts at lowest prices. Three warehouses of parts for your every need. All makes and models. One of America's largest inventories. Dealers welcome. Write us: Route 4, Worthington, Minnesota 56187; Phone 507/-372-2911.

HOE BETWEEN PLANTS and rows . . . no more back breaking labor, self-propelled hoeing machine; depth adjustable; thousands in use; year warranty. Factory discount; month trial; time payments. Free literature. Auto Hoe, Inc., De Pere 9, Wisconsin 54115.

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FOR SALE: Used DeLaval double four herringbone milking parlor equipped with Model #100 milker, four weigh jars, electric pulsator, vacuum pump, automatic washer with wash tank. Also, used Allis-Chalmers four-row pull type corn planter; 20′ x 40′ Unadilla silo with Starline silo unloader. Edwin Hulbert, Jr., Rt. #1, Troupsburg, N.Y. 14885.

NEW & USED EQUIPMENT

PARTS BY THE THOUSANDS: Dismantling Cat. D2 thru D8; 933, 955, 977; HD5 thru HD 21 Int. TD6 thru TD25; Oliver Cletrac, JD, Case, transmissions, final drives, winches. Engines, power units. For sale - cheap: good used crawlers, loaders, backhoes. New and used tracks, rollers, idlers, sprockets, up to 30% off on new bottoms. "If not listed ask for it." Wanted: Used equip. parts; crawler, hydraulic, track rebuilding service. Ben Lombardo Equip. Co., R.D. #6, Sinking Spring, 1A, Reading, Pa. Phone 215/678-1941: 944-7171.

LAMINATED RAFTERS & ARCHES for all farm purposes. Kiln-dried lumber. Waterproof glue. Popular sizes stocked 12′ to 80′ and wider. Box S-43, Unadilla Silo Co., Unadilla, N.Y. 13849.

SHEEP DIP TANK - portable, lightweight, easy setup. Harold E. Lehman, RD2, Wellsville, N.Y. 14895.

WANTED - SHINGLE MILL or merry-go-round mill. Give complete condition and price. Milton C. Richardson, West Brookfield, Mass. 01585.

WANTED: DELCO shallow well pump, Model A only. Vicinity of Rochester, N.Y. F. W. Cummings, phone 716/244-7668.

ONE CHICAGO CONTINUOUS grain and corn dryer. Eight ton per hour capacity. Never been used. Roofed and in new condition. Write Arthur Huxtable, Richfield Springs, N.Y. 13439.

JOHN DEERE 2010, loader snow bucket, Sims cab, 1500 hours. Excellent condition. $4,000.00. Daniel A. Walker, 63 Gray Rd., Falmouth, Maine 04105. 207/797-4936.

OLIVER 1855D, 550 GAS, J.D. 4020 gas, 3020, 3010, 630. AC D17 gas. Farmall M. Massey Ferguson 35. John Deere #205 corn head for 40 combine. NH 460, 461, 469 haybines. JD 237 2-row mounted corn pickers. IH 205 combine. Gunther D. Heussman, S. 5th St. Mountain, Emmaus, Pa. 18049. Phone 215/965-5203.

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FOR SALE 1966 F800 Ford with 16 yard Heil pushout packer, new block, new tires, new clutch, new paint. Phone: 203-423-8706, after 5:00 PM.

WANTED: USED FRIEND row crop sprayer or hydraulic orchard sprayer, 25 or 35 G.P.M. Peter Sorensen, 809 Racebrook Road, Orange, Conn. 06477. 203/795-5841.

NEW AND USED PLOWS - Massey Ferguson Semi Mount Heavy Beam with spring trip and tail wheel - 4B x 14″, our net price $860.-00; 5B x 14″, our net price $975.00; 6B x 14″, our net price $1160.00. New National 3B x 14″ mounted, $437.00; 4B x 16″ mounted, $620.00. Used plows - IHC 4B x 14″ fast hitch, $350.-00. IHC 5B x 14″ fast hitch semi mount, $425.00. Allis-Chalmers 3 pt. semi mount heavy 7B x 16″, $985.00. JD 4B x 16″ semi $985.00; many other 2 and 3 bottom 3 pt. hitch and pull plows to choose from. Dick Brady Farm Tractor Sales, Inc., P.O. Box AA, Fairview, Pa. 16415. Phone 814/474-5811.

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WANTED: ALLIS-CHALMERS round baler. Any distance. Alfred Roeder, Seneca, Kansas 66538.

2,000 FEET IRRIGATION PIPE 5″. Two gigantic sprinklers, 7 stations - Army Surplus. Pump $2,500.00. Phone 518/299-3564. Herbert Falke, Prattsville, N.Y. 12468.

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Save 75% by drilling your own water well this new, easy way! Complete information $1.00 ppd.

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DUOCIDE. THE SURE-FIRE rat killer. Powerful anticoagulant poison in easy-to-use toss packets. Stays fresh. Used as directed, safe around pets, livestock. Sold only at Agway.

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STRAWBERRY PLANTS - Featuring New Holiday (N.Y. 1144), Guardian, Raritan, Garnet and 18 other varieties adapted to Northeast. Plants are grown from indexed virus-free stock, in soil fumigated with high rates of Vorlex and protected by rigorous spray program. Nursery State Inspected. Suppliers for commercial growers and home gardeners. Also, new large strain of rust-resistant Mary Washington Asparagus roots. Our 41st year. Free Catalog and Growing Guide. Lewis Farms, RFD-A, South Deerfield, Mass. 01373.

600 ASSORTED SWEET ONION plants with free planting guide $4.80 postpaid. Tonco, "home of the sweet onion", Farmersville, Texas 75031.

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CERTIFIED STRAWBERRY PLANTS: Surecrop; Catskill; Sunrise; Fairfax; Sparkle $5.95 - 100. Ozark Beauty Everbearing $6.95 - 100. Postpaid. Perkins Berry Farm, RD#1, Box 230, Hudson Falls, N.Y. 12839.

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2 COMPARTMENT MILK PICKUP tank to fit single axle truck, up to 2,000 gallon capacity. Walker's Fruit Basket, Forestville, N.Y. 14062. Phone 716/679-1292.

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U-pick apple customers at Harlow's Sugar House don't use ladders. Instead, they use a picking device like the one shown here by Frank Harlow. Portable U-pick headquarters at right rear.

Pick-your-own farm

HARLOW'S bright red Sugar House on Highway 5 in Putney, Vermont, is noted year-round, but during the strawberry, blueberry and apple seasons, it's known as the "pick-your-own" farm.

The Harlows . . . Donald, his wife Madeline, and Uncle Frank Harlow . . . started their U-pick program when the new thruway diverted traffic and they couldn't sell their three or four acres of strawberries. Now they offer U-pick customers 14 acres and some 100,000 baskets of mighty choice picking. It took several years of radio and newspaper advertising to build up the U-pick strawberry trade.

Strawberries are grown specifically for U-pick customers. Picking starts about June 20 with Redcoat (a Canadian variety) and continues with Midway and Sparkle for about a month. Customers are not allowed in the strawberry beds until the berries are well-ripened and everyone gets good picking.

Choice Picking

Unlike most U-pick programs, the Harlows do not pre-pick; the customer gets the choice picking. The program is well regulated . . . customers must pick clean, stay in the assigned row, and notify the foreman when finished. A wire with a white flag marks where the picker stops.

Picking is under strict supervision. Children under 10 years of age are not allowed in the fields. Customers desiring fewer than six quarts must buy at the salesroom at regular prices. This eliminates the person who may pick a quart or two, eat a quart, and trample another quart in the rows.

The berries are picked directly into waxed carry-home cardboard filler flats holding approximately six quarts. The fillers fit into homemade wooden carriers. Handles for the carriers are made at a local basket factory. The customer gets the berry-filled insert, which can be carried in two hands. The fillers are cheaper than buying quart baskets, and the Harlows do not charge extra for them.

There's no problem in pricing the berries, even in heaped flats. The 1972 price was 40 cents a pound. A pound and a half equals a quart . . . or 60 cents. The retail salesroom price was 85 cents a quart. Filler flats hold 10 to 12 pounds of berries, depending on how high they're heaped.

A skid-mounted checkout booth, well marked with prices and crops available on a U-pick basis, is moved by tractor to the various picking areas as required. After the strawberry season, an acre of cultivated high bush blueberries . . . Herbert, Bluecrop, Berkeley and Ivanhoe . . . is available for picking from about August 1 to mid-September. Blueberries, too, are picked into the cardboard inserts; last season's price was 45 cents per pound. A few raspberries are also available.

In the fall, the Harlows find that people like to get outdoors, pick a few apples, and let the youngsters run in the orchard. They accommodate by letting folks into their 15-acre orchard on a U-pick basis. To make sure nobody gets hurt, they top all trees, leaving only what customers can pick "with both feet on the ground" by using a commercial picking aid.

Picker

This device (No. 8 fruit picker manufactured by Bartlett Mfg. Co., 3003 East Grand Boulevard, Detroit, Michigan) has a wooden handle nearly six feet long topped with a cloth picking bag. It gives U-pick customers quite a reach! No ladders are permitted. No cars are permitted in the orchard, and parking is well regulated.

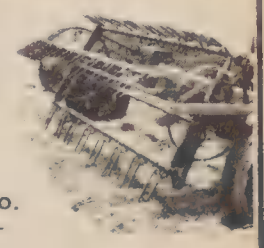
Customers are provided with paper picking bags which hold about 20 pounds of apples level, 23 or 24 pounds heaped. Last season's prices were 10 cents per pound for McIntosh apples, 12 cents per pound for Red and Golden Delicious, Macouns and other varieties.

Short-season crops . . . maple syrup, berries and apples . . . allow the Harlows to diversify for a well-rounded farm program.



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Ahead for '73

by Amos Kirby
New Jersey Editor

BOB Langlois, county agricultural agent specializing in vegetables, predicts an increase in fresh-market vegetable acreage in New Jersey. Here are some of his observations:

1. The decline of about 3,000 acres in asparagus should result in very good prices. Returns in 1972, even on field-run packs, was one of the best in a long time.

The decline to 10,000 acres in 1973 (from over 13,000 acres in 1972 and a peak of 26,000 acres a few years ago) indicates that demand will exceed the supply. Earl Erdner, a Swedesboro broker, is seeking a substantial increase over his normal buying of asparagus.

2. The inability of growers last year to supply the demand for sweet corn would indicate that this acreage can be increased. A substantial portion of the 1972 demand came from roadside markets.

3. New production methods and better varieties have made cantaloupes a more promising crop.

4. The pickle market should not be overlooked. In recent years, out-of-state processors have come to New Jersey to find supplies that will extend their processing season.

5. The early tomato acreage, while rather stable in recent years, has found an increasing demand from roadside markets. This increase has come from North Jersey, Pennsylvania, and other areas where tomatoes of Jersey freshness and quality have become important to consumers.

6. The slight increase in price offered by contract for processing tomatoes is not encouraging. The Heinz Company has offered a $2 per ton increase, but it does not reflect increased costs of production.

7. Soybeans, selling for double the normal price, are likely to increase in acreage, and absorb any acreage coming out of vegetables.

If a grower can come through with a crop of 60 bushels per acre, as Preston Ware of Salem, New Jersey did in 1972, he can grow soybeans profitably at $3 market next fall. With average yields of 25-30 bushels per acre, a $6 market would be needed next fall to come up with a gross return of $180 per acre.

8. The pick-your-own crops provide a market change that has still more potential. County agent Ray Battle reports that an increasing number of growers are finding this a promising outlet.

9. Robert Latimer, farm management specialist at Rutgers, anticipates higher prices for milk. Production costs are rising; the Wall Street Journal recently quoted soybean oil meal at $232 per ton, compared with $85 a year ago.

HIGHER PRICES

How high food prices will go is unknown. The big cry is about beef, pork and chicken prices. It should be recognized that low prices three or more years ago discouraged livestock growers from increasing production.

With veal up to 70 cents per pound at the country markets, and Japan paying 78 cents per pound for pork butts at West Coast shipping points, there isn't much likelihood of a substantial price decline in the foreseeable future.

POTATOES

Three new white potato varieties . . . Shurchip, Superior and Chippewa . . . rank high on yields in the Salem-Cumberland county areas. The 1973 recommendations include these three, as well as Norchip, Green Mountain, Raritan, Kennebec, Penn 71, and Haig. The chipping market has become an important outlet in the New Jersey markets.

OPEN BURNING

Open burning of diseased vegetable matter and orchard trimmings has become a burning issue in the Garden State. The Environmental Protection Agency has set up regulations that are almost impossible to meet.

County agent Leslie Miller lists seven items of information on an application for a burning permit:

1. Name, address, telephone number.
2. Type of business.
3. Municipal restrictions on burning.
4. Type and amount of material to be burned.
5. Proposed burning procedure (whether burned at one time or how many times).
6. Exact location (road and other landmarks).
7. Reasons why possible insect or disease infestation cannot be controlled by mechanical chipping or composting, or any other method to reduce pollution problems.

This information is to go to the State Department of Agriculture, which makes an on-site inspection. Results of the inspection, plus previous information, then goes to the EPA and, if they approve, the permit will be issued through the Department of Forestry.

I asked for a permit to burn trimmings from shade trees and garden waste material. The reply in two words . . . "NO BURNING."

INTRODUCING OSHA

Better get acquainted with OSHA. That means the Occupational Safety and Health Act. It is a federal law and applies to every operator who employs workers.

If one has an accident, no matter who is responsible, it must be reported. Then comes an inspection with full reports. Once the official inspector arrives on the farm, he may demand an inspection of every occupational safety and health factor on the farm. This places agriculture under similar safety standards as industry.

The costs can be substantial. It could involve placing safety rollbars on every tractor. This one item can range, according to supply dealers, from $400 to $700 per tractor.

STORED PESTICIDES

Pesticides left over from 1972 are probably all right to be used in 1973. Wettable powders have excellent shelf life.

The herbicides may absorb moisture and harden. If being used this year, they should be broken into gravel-size clumps before water is added.

Liquid formulations may be vulnerable to freezing temperatures and may crystalize. If one has pesticides and herbicides left over, discussing their use with extension people will be a safe course.

TAXING WATER

What next? The Delaware River Basin Commission is planning to tax water users for irrigation from streams that flow into the Delaware River.

The proposed tax will amount to about 4 cents per 1,000 gallons, and apply only to water in excess of what was used in 1970. An exception . . . any installation using surface water after April 1, 1971 will be taxed for all water used.

A grower using 2.5 million gallons a year will pay as much as $100 per year, plus the cost and inconvenience of establishing a meter on the pump, plus the bookkeeping before filing the return.

The money is to be used by the Commission for debt service operation, reserves, and administrative costs.

BUY OR LEASE

A difficult question . . . "Should one buy or lease land in 1973 for future production goals?"

According to Donn Kerr, Rutgers farm economist, the average value of New Jersey farmland has increased from $742 an acre in 1966 to $1,311 in 1972. During the past seven years, land values have increased each year . . . and 1973 will see the trend continue.

Growers who plan to stay in farming may find it wise to buy land available at reasonable prices. Leasing may be the best course for those who are not planning to continue farming for more than a few years.

TRICKLE IRRIGATION

The South Jersey Research Center has had promising results with the trickle system of irrigation. Water efficiency has been increased by 30 percent, evaporation has been reduced, and the moving of portable pipes eliminated. The trickle system is adaptable to many vegetables, and 1972 results indicate that its use will be increased as growers learn more about it.

FERTILIZER COSTS

Fertilizer costs are up for 1973, largely due to increased demand for nitrogen and soaring demand for fertilizer overseas. Indications are that fertilizer costs in New Jersey will be about 10 percent higher than last year.

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With Ford's big wing-type field cultivator and 110-hp* Ford Blue 8600 tractor, you can till up to 150 acres a day. The Ford 208 field cultivators come in sizes from 8½ to 32 feet. Rugged 3-bar frames stagger teeth for easy trash flow. The 8600 is another new convenience machine from Ford with all the comfort features of the 9600. This year, go with the fast ones. Go with Ford Blue.



Open the throttle without a worry.

Strong is the word for Ford chisel plows. Like this 10-footer on the 83-hp Ford 7000 with Load Monitor hydraulics. Optional heavy-duty teeth are 1½ x 2 inch hardened spring steel. Heavy-duty 3-bar frames let you chisel fast and deep. Twin spring mounts take the stress of extra-heavy work. Sizes 5 to 32 feet. Hitch one to your tractor and go.



Cut deep and wide with the Ford 230.

Disc up to 20 feet wide at a pass . . . as fast as you want to drive. This Ford 230 disc harrow can be adjusted to finish a seedbed at high speeds . . . or angled for deep, aggressive cutting in stalks or stubble. And, it has the weight and sturdiness for this 135-hp* 9600 tractor . . . in cutting widths of 10 to 20 feet. For still greater cutting and mixing action, you can choose the massive 16-ft Ford 236 with up to 450 lbs per foot of width and 28-in. disc blades . . . for stubble mulch farming at its best. Up front on the new Ford Blue 9600, you sit relaxed. All controls are conveniently grouped. A thick rubber mat cushions your feet. Optional Dual Power gives you 28 per cent more pull at a touch of your toe. Match a Ford disc to your Ford Blue tractor, and you've found your tillage team.

**Manufacturer's estimate. Observed PTO horsepower.*

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Malvese Tractor & Implement Co.
HIGHLAND
W. E. Haviland, Inc.
ITHACA
Ithaca Ford Tractor Inc.
JAMESVILLE
Craner Tractor & Implement Co.
LATHAM
Bebout Ford Tractor, Inc.
LITTLE VALLEY
Armes Tractor & Implement Corp.
LIVINGSTON MANOR
Liberty Tractor Co., Inc.
LOCKPORT
Niagara Ford Tractor, Inc.
LYONS FALLS
Cogar Equipment Corp.
MATTITUCK
Island Ford Tractor Sales, Inc.
MONTGOMERY
Chambers Ford Tractor Sales
NORWICH
Chenango Ford Tractor, Inc.
ONEONTA
Iroquois Ford Tractor Sales, Inc.
PALMYRA
Newark Tractor, Inc.
PANAMA
Whitney & Wood
PENN YAN
Del Rossa Ford Tractor & Implement
PERU
Peru Farm Center, Inc.
PINE PLAINS
Pine Plains Ford Tractor, Inc.
PORT JERVIS
Deerpark Tractor & Equipment Co.

PULASKI
Crocker Tractor Sales, Inc.
RICHFIELD SPRINGS
Springer's, Inc.
SHERIDAN
Pagano Tractor & Implement, Inc.
SODUS
DeHondt Tractor & Implement
SYRACUSE
DeVeau Ford Tractor, Inc.
TROY
Alpine Ford Tractor & Equip. Inc.
WEEDSPORT
DeVeau Ford Tractor, Inc.
WOODHULL
Symond's Ford Service

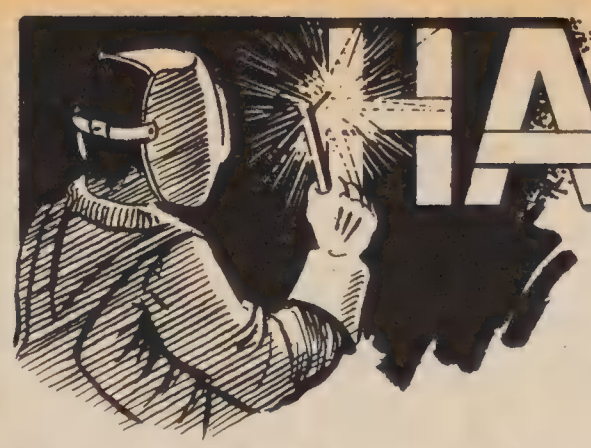
NEW JERSEY

ANDOVER
Andover Tractor & Equipment, Inc.
BRIDGETON
Leslie G. Fogg, Inc.
FAIRFIELD
Caldwell Tractor & Equipment, Inc.
FREEHOLD
Shore Tractor Co.
PRINCETON
Central Tractor & Equipment Corp.
SOMERVILLE
Seaboard Tractor & Equipment Corp.
WASHINGTON, N.J.
Smith Tractor & Equipment Inc.

PENNSYLVANIA

Sayre
Ben Van Dusen Sales & Service

See us to buy, lease or finance.



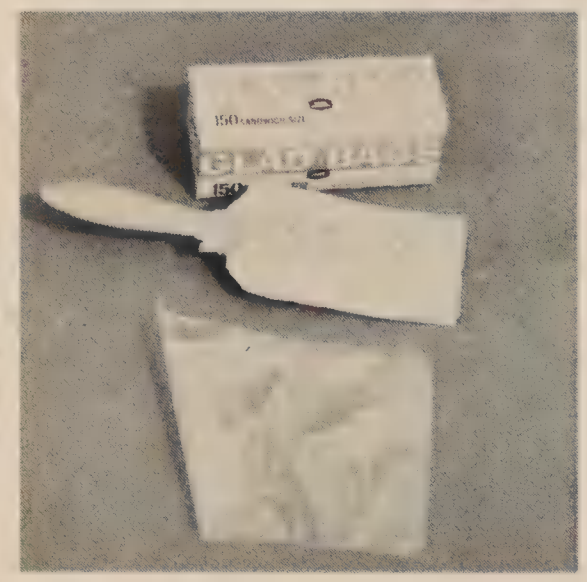
HANDY on the Farm

Visible—A pegboard above the shop workbench to hold tools is handy. An addition to it is a narrow shelf to which the screw tops of glass jars can be fastened on the underside. These filled with screws, washers, small bolts, nails, etc., keeps them from rusting, separated as to kind and size, and readily available.





Cart—The oxy-acetylene gas welding outfit is mounted on a rubber-tired cart. The frame and base in which the tanks rest are welded from angle iron to which a pair of pipe handles are added. The hose is coiled on two hooks of iron rod.



Wrapped – Use a food saver bag (or aluminum foil) to hold your brush overnight. Place the brush in the open bag and fold it down tight against the bristles. If the air is expelled as the bag is closed, the brush will not dry out during overnight storage.



Smooth – Use a kitchen can opener to open cans of paint or varnish that are to be used up immediately. The smooth top without the lip makes it easier to pour all the paint out of the pail.

Pails opened in this manner can be cleaned and put to any number of uses around the farm.

Travel . . . . .

(Continued from page 49)

best of our Great West. Often this trip is sold out far ahead of departure date, so circle **July 28 to August 18** on your calendar and make your reservations early, so you won't be disappointed.

Our group will gather in Chicago and fly to Denver. We'll also visit Cheyenne and Old Fort Laramie on our way to the **Black Hills.** Wind Cave National Park, the site of Crazy Horse Memorial, famous Mount Rushmore, Needles Highway and a performance of the Passion Play at Spearfish are highlights of our visit to the Black Hills.

Next, we spend two days in **Yellowstone,** probably our best known National Park. We'll see the Grand Canyon of the Yellowstone and Yellowstone Falls, the hot springs and geysers including "Old Faithful," and all the other natural wonders of this area.

Grand Teton National Park is just a short distance from Yellowstone. A boat ride on Jackson Lake with the majestic peaks towering above us and a sightseeing drive to Jenny Lake are part of our activities here.

In historic **Salt Lake City,** we'll see the Mormon Temple and Tabernacle, the state capitol, and attend an organ recital at Temple Square. We'll see Bryce Canyon and the Painted Desert on our way to **Grand Canyon National Park.** We'll drive around the North Rim and enjoy a cruise on Lake Powell while we're in this famous Park.

In **Mesa Verde National Park,** we'll see some of the cliff dwellings and then continue to Durango, Colorado, historic railroad and silver boom town. The 45-mile ride on the narrow gauge train, "The Silverton," through the San Juan Mountains has to be one of the most exciting train rides anywhere!

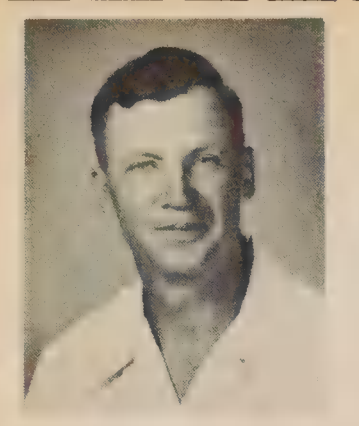
In **Black Canyon of the Gunnison,** the river has cut a gorge 2400 feet deep in places, and exposed are some of the earth's oldest rocks. At **Royal Gorge,** you can ride the incline railway to the bottom of the gorge or cross the suspension bridge which spans the gorge.

Colorado Springs, a trip to the top of Pike's Peak, Garden of the Gods, and a visit to the U.S. Air Force Academy are just a few of the other fascinating places we will see before this wonderful vacation ends. Here is a chance to see the most beautiful and famous places in our Great West in the very nicest way possible – with AMERICAN AGRICULTURIST and Travel Service Bureau, the folks from Needham, Massachusetts, who do such a fine job arranging all our tours. Come on along!

Looking Ahead

Our 1973 Delta Queen cruise will be on the upper Mississippi River, from St. Paul, Minnesota, to St. Louis – a completely new itinerary for you. This stretch of the River is entirely different from other areas through which the Delta Queen has traveled.

Interesting shore excursions are tentatively planned at Winona, Minnesota; Muscatine, Iowa, and Hannibal, Missouri. Dates for this fascinating river trip are **August 11-18,** and we hope you will join our group.



Gayway Farm Notes

by HAROLD HAWLEY

A REVIEW

If you've not moved for a few years, nor taken time to clean out your files or attic, you probably have the same kind of accumulation we do. One can't but reflect on changes in the times and tastes and interests of the individuals involved when the things saved . . . the books, magazines, toys, speeches and quotes, the records of the cows and the business, etc. . . . are reviewed with the objective of reducing the tonnage.

The recreational equipment once used and now neglected is more than a record of kids growing up; it's a record of a whole family's shift in interest. A little reflection on the activities of various friends suggests that this is a typical experience. Think of home and the inactive equipment stashed around as a refresher to the things once enjoyed. Then add the currently used stuff. Most lists just have to include balls and dolls of every kind.

Don't overlook the tricycles, saddles, sleds, skis, toboggans and motor bikes, cars and anything else mobile. Games, toys and books are another whole category. Specialized clothing and footwear run all the way from shoes and sneaks, through swim trunks and gym suits to hunting clothes and crash helmets.

All of these and many more are reminders of activities of various members of the family. The books and magazine shelves tell the same story — and certainly are pretty fair indicators of past and present interests.

Revealing

Equally revealing are the business records. The files show old registration papers, DHIC sheets, cancelled mortgage and completed contracts, receipts for supplies no longer used if the type of farming has changed. Machinery purchases tell a vivid story of changes in the farm operations and the times. Old receipts and records also suggest some advance in prices over the years!

A file of clippings, saved because something someone wrote or said had appeal or made sense at one time, is a yardstick of the shift in interest and/or philosophy over the years. And if one has saved any of his own utterances, he would likely be 1) embarrased and 2) amazed at the change in his thinking from time to time! I hope inconsistency is forgivable on the premise that it indicates openmindedness and receptivity to new ideas!

These were our reactions as we sorted and discarded, preparatory to moving from our home of the last 28 years. The change from active, full-time farming to some farm-related activity has taken place over the past nine months. Knowing that some good farmers are going to be taking over the operation has made the transition less painful.

We are most thankful for my partial return to health so we can enjoy things, and are most happy to be able to continue to live in the country and work with farm people.

LET'S CHOOSE

It has long been recognized that inflation and unbalanced budgets are among the worst enemies and dangers faced by most citizens. Along comes a president with enough courage to cut back on a wide range of federal spending, and what happens? From people and organizations from every walk of life comes the impassioned plea, "Don't do this to ME." The press pictures Mr. Nixon as taking food from the mouths of babes or worse.

Without going into detail as to whether cuts have been made in all the right places and by the right amounts, maybe we should first decide whether we really want to do something about inflation, the unbalanced budget, and taxes. If we don't then in the great American tradition we lambaste our leadership, call on our congressmen to **restore** the cuts, and then beef about resultant taxes!

If, on the other hand, we really are concerned, we have a responsibility to speak up amid the opposing clamor. Cuts are always painful, but how else can expenditures be kept down?

Sure, there will be great division in thinking as to whose ox should be gored. There has been a great hue and cry about REAP funds. But, it's just possible that a little delay in this program won't set the country back all that much. As a matter of fact, it might be smart to allow time for more research as to how best to accomplish the conservation and anti-pollution objectives of the program.

As for some of the other programs, it again depends on where you sit. The OEO, with its unimpressive record of accomplishment per dollar spent, can die with no tears from this corner. Among other things, it has used public funds to hire legal talent to oppose private citizens; on that count alone it can expect no support from those of us who feel this is a wrong use of taxpayer money.

The loss of funds for education seems to be a hoss of another color. Some of us think money spent on good research projects may get more mileage than is likely from other expenditures. While research cuts seem unfortunate to me, possibly we have to remind ourselves that 1) with austerity budgets comes a real hard look at the way the monies are spent and 2) the only way to get the overall reductions in spending that we think are a must, is to accept some cuts in our own pet projects.

There is room for some difference of opinion about Soil Conservation activity in cleaning up creeks. Some creeks need it. Many would look better, and might even benefit from being straightened. A proper yardstick at this time would seem to be that cleaning and straightening should be done only where property is threatened by flooding if nothing is done to prevent it. In some sections of the state, this might involve most of the streams. However, in many of the stream channels over the Northeast, there is no greater need to do anything now than there has been for years.

It's hard to justify changing a situation which has developed and existed for years, and where no property is threatened by flooding, just because federal money has been made available. I'm even of the opinion that cleaning and straightening some stream channels will not be in the best interest of the public.

The crooks, eddies, and fallen trees create deep pools for fish and water animals.

Overlooked

Often overlooked is the fact that deepening and straightening a channel may intensify flooding downstream. Better it should be allowed to spill out over marshes, woods, and pastures at high level stages. As it spreads out and slows up, it drops its load of silt rather than carrying it downstream to fill in stream channels and lakes and harbors.

Many of us have become convinced that small upstream dams in local watersheds are the most feasible way to control excess water. Letting it spill over into low-lying, non-valuable areas is a part of such a runoff-delaying action. Stream straightening and deepening has just the opposite effect; it hurries the water away and creates a problem for others.

The history of flood control in the Mississippi River basin has been one of funneling the water past a town or a fertile bottomland by building levees to deepen the channels and raise the banks. The next town protects itself by increasing the height of its levees still more. Repeat this enough times, and you have 30 to 40-foot embankments and the end is not yet in sight.

Even where only limited flooding used to occur behind pretty modest breastworks, the need to go higher is obvious as long as the escalation continues upstream. We really shouldn't repeat that kind of folly.

CONTROL OF WOODLANDS

It's hard to come up with a good argument for public ownership of the woodlands in this country. In the West, a high percentage of the land is still owned by the federal government. Except in the case of parks, game preserves, and wilderness areas, it would seem to be way past time when these millions of acres should be in private hands.

Private ownership implies responsible use of our woodland resources. Especially in these days of heightened concern about our environment, many people are going to take a long look at the way our woods are being handled. Even though in private hands, as part of farms, the future of our woods and forests will increasingly be subject to public scrutiny and control unless stewardship is wise.

My concern in this regard comes from observing too many cases where loggers have been sold some trees and have riddled woodlots . . . cutting small trees which would better stand a few more years, and carelessly felling trees to the damage and detriment of the rest of the timber.

Lastly, I'm appalled at the way some loggers cut off a butt log and waste the rest of the tree. Of course, reputable loggers don't operate this way, but unless farmers learn to sell their standing timber to only the responsible ones, or to police the activities of the others, the public may well insist on some control over the use and disposition of these woodland resources.

LITTERING

A few folks in our area have launched an effort to outlaw the sale of beverages in metal containers and non-returnable bottles. They would prefer that a deposit be paid on glass containers which would then be returned, they hope. I suspect no one could disagree with their objective, which is to cut down on roadside litter.

Certainly metal soft drink and beer cans are an important part of this litter. However, all manner of other stuff makes the scene. Certainly experience should remind us that even when some glass containers were on a deposit-paid basis we had a lot of glass bottles along the road and in our fields. This suggests that banning the present type of containers isn't going to entirely solve the roadside litter problem.

Within a day's drive from central New York, one can see signs along the highways in various states indicating fines for littering ranging from $25 to $500. A $500 penalty, if enforced, would be a real deterrent, and I suspect a $25 fine would, too. It's tough to catch violators, but it could be done if real effort were put into it.

A few fines, properly publicized, would help to discourage this disgusting and costly practice. The sure and certain knowledge that some kind of an enforcement effort was underway would likely be more of a deterrent than posting a notice of a large fine, and then not enforcing it. Of course, some states may do both and I'm all for that.

I recall that when we lived in Illinois, scraps of paper and envelopes were scanned for clues as to who had dropped garbage or other material. A name, address or other evidence brought the law a-running and the culprit got some free publicity in the paper . . . plus a "fine," which was likely to be the privilege of cleaning up a mile or two of right of way!

The results were good. I never heard of any repeaters and few who read or heard of the penalty wanted any part of it. The key, of course, was the fact that there was a real attempt at enforcement.

READER SERVICE



MORE ON LINE FENCES

Last October, we carried an item about the "historic decision" concerning line or border fences, handed down in July by the Appellate Division of the New York State Supreme Court.

For nearly two hundred years, Section 300 of the Town Law required adjoining landowners to build and maintain equitable portions of the fence between their properties unless there was mutual agreement that such a fence was not necessary.

The July decision found that particular portion of Section 300 unconstitutional. It was ruled that an adjoining landowner **who does not keep livestock** cannot be forced to share the cost of a division fence for the benefit of his neighbor. The decision did not void other provisions of Section 300.

The case was carried to the Court of Appeals in Albany. On February 15, the July decision of the Appellate Division was affirmed. It is not expected that the case will be carried any further.

The fence law is no longer cut and dried. There will be more disputes taken to court for settlement. For example, does one confined or tethered horse constitute livestock? What happens to a line fence agreement, legally executed years ago, and handed down to succeeding property owners?

Suppose a person buys farm property without any thought of keeping livestock, but decides six months later to go into the dairy business. In the meantime, his neighbor has built or repaired the entire line fence.

According to the State Department of Agriculture and Markets, town assessors still have responsibilities as fence viewers. Our guess is that they may find themselves much busier in the months and years ahead!

READER SERVICE CLAIMS SETTLED

NEW YORK

Mrs. Louis Metz, Amsterdam ..... $ 40.00
(registration fee refunded)
Miss Sophie Barsczeski, Sagaponack 45.29
(refunds on 3 orders)
Mr. Lawrence Otto, Martville 242.95
(refund on camera order)
Mr. Dennis J. Egan, North Bangor ..81.61
(refund on order)
Mrs. Mary Gordon, Lowville 3.00
(refund on order)
Mr. Ted Freidenstine, Youngsville ..81.43
(refund on order)
Mrs. Floyd E. Wilkins, Homer 15.17
(refund on sweater)

PENNSYLVANIA

Mr. H. L. Crawford, Mansfield 7.98
(refund on moccasins)
Mrs. Hubert J. Vogt, Wayland 17.64
(incorrect charges cleared)
Mrs. Mabel J. Ritter, Lebanon 17.55
(incorrect charges cleared)

NEW JERSEY

Mrs. Orrie Terpstra, Columbia 408.45
(refond on cleaner)

NEW HAMPSHIRE

Mrs. Karl F. Connor, Henniker 5.55
(incorrect charges cleared)
Mrs. Harry Rudner, Georges Mills 5.98
(refund on order)
Mr. Linwood B. Grant, Antrim..... 37.00
(refund on order)

SNOWMO ACCESSORIES

About a year ago, we carried an advertisement from Snowmo Accessories Company, 5804 Northwood, Minneapolis, Minnesota. Subsequently, we received complaints from two subscribers.

Merchandise ordered by one reader was not available. Another reader did not receive the right items.

Letters from both subscribers and from READER SERVICE were ignored. Snowmo Accessories Company has been placed on our undesirable list, and further advertising will not be accepted.

STANFORD RESEARCH

As a follow-up to the item titled "Before and After" which appeared in the February issue, a Fraud Order was recently issued by the United States Postal Service against Stanford Research Corporaton, developers of Slim-Tabs 33 slenderizing tablets.

The Postal Service is returning all mail to senders.

WORKING HIS WAY . . . . .

The AMERICAN AGRICULTURIST subscription salesman has come to be a welcome sight among rural people. But what about the young subscription salesman who claims to be working his or her way through college? Surprisingly, this gimmick is still being used by many of the so-called cash crews that move from one community to another, soliciting subscriptions to a long list of magazines.

Many of these subscription crews ignore local restrictions on door-to-door soliciting without a permit, write subscriptions without authorization from the publishers, knowingly enter into sales contracts with minors, fail to process subscriptions properly, and solicit subscriptions for magazines no longer in publication.

These crews retain a portion of the subscription cost (usually 50 percent) as a commission. The balance is either sent by the subscriber or by the home office to the magazine involved.

A subscriber who writes directly to the magazine to which he subscribed will find that he cannot get a full refund even after months of trying to get an adjustment.

USED EQUIPMENT

A subscriber bought a tractor and self-loading pan from a used equipment dealer. When the tractor was delivered, he paid the total price of $2,000 with the understanding that the pan would be delivered in a few days. It never arrived.

When buying used equipment, make sure that the dealer is reliable, do not make final payment until delivery is complete, and examine the equipment carefully to be sure it is as represented. Get any commitments or guarantees in writing.



Local agent Len DeFrancisco of Falconer, N.Y. delivers North American benefits to Stephen Eckman as his father, Albert and younger brother Albert Jr. look on.

PROTECTS ALL THE FAMILY

Albert M. Eckman began his protection in 1959. Over the years he has added to the combination of policies for his wife and seven children. Both he and Albert Jr. have received benefits. Recently Stephen had a farm truck accident on the way to his farm to do chores. A dislocated shoulder and head injury landed him in the hospital.

HE CARRIED COMBINATION COVERAGE

Here's how Stephen's North American policies paid him.

Hospital and Home $150 weekly income		
6 days in hospital	$128.58	
1 week 4 days at home	257.15	**$385.73**
Accident medical expense		**899.95**
Accident disability 5 units		
7 weeks total disability	$525.00	
6 days in hospital disability	32.10	**557.10**
		$1842.78

Mr. and Mrs. Eckman say . . .

"Over the years we had faith in your company and were pleased with the prompt settlement of our claims. Agent Len DeFrancisco has always advised us well."

OTHER CLAIMS PAID

George Hoerning, Jr., Altamont, N.Y. $1225.71
Fell from tree—broke leg
Roger G. Fanton, Wellsville, N.Y. 190.53
Fell in gym—inj. elbow
Richard H. Campbell, Little Valley, N.Y. 1239.52
Fell off barn roof—broke kneecap
Rudolph R. Sluga, E. Randolph, N.Y. 304.90
Horse reared—inj. face
Robert Wilder, Weedsport, N.Y. 1700.71
Auto accident—broke jaw
Helen Anderson, Port Byron, N.Y. 687.50
Kicked by cow—injured forearm
Maurice Paterniti, Jamestown, N.Y. 1070.00
Fell off ladder—broke teeth
Kenneth Roy Peck, Cherry Creek, N.Y. 2830.00
Auto accident—broke hip
Shirley Sheive, Pine City, N.Y. 625.75
Cutting meat on saw—inj. thumb
Rollie Brown, McDonough, N.Y. 374.55
Dragged by conveyor—injured leg
William G. Houghtaling, Oxford, N.Y. 742.01
Struck by limb—inj. eye
Robert Sears, Churubusco, N.Y. 1415.00
Tractor rolled back—crushed chest
Harry J. Hess, Marathon, N.Y. 1801.42
Kicked by cow—inj. knee
Duane R. Merrill, Walton, N.Y. 803.07
Fell off barn roof—broke arm
Virginia Scholerman, Delhi, N.Y. 363.90
School bus accident—cut scalp
Arthur W. Lewis, Westport, N.Y. 1830.00
Caught in auger—broke arm
George Bradshaw, Chateaugay, N.Y. 1203.55
Stepped on by heifer—inj. head
Robert Hart, Johnstown, N.Y. 325.72
Tractor accident—inj. arm
Deanna Suchowij, Little Falls, N.Y. 484.00
Gored by bull—broke ribs
Arlene E. Roberts, Lorraine, N.Y. 1040.97
Tractor accident—inj. knee
Hedwig Wimmer, Redwood, N.Y. 173.00
Stepped on rusty nail—inj. foot
Dawn M. Makuch, Lowville, N.Y. 648.85
Auto accident—whiplash injury
Richard Roggie, Lowville, N.Y. 775.68
Thrown by heifer—broke ankle
Ralph Reed, Munnsville, N.Y. 386.62
Hit with lever—broke arm
Harold W. Dye, Honeoye Falls, N.Y. 235.00
Fell down steps—inj. back
Karl Lottman, Canajoharie, N.Y. 1666.38
Farm truck accident—head inj.
Victoria Kopack, Utica, N.Y. $ 238.00
Fell on wet floor—inj. back
Mabel G. Partridge, LaFayette, N.Y. 549.98
Auto accident—broke knee
Thomas Powers, Holcomb, N.Y. 325.60
Caught in elevator—inj. foot
Julia Bigert, Pine Island, N.Y. 483.59
Auto accident—inj. knee
Margaret Brundage, Albion, N.Y. 183.19
Tripped over wheelbarrow—broke arm
Adelle Gristwood, Pennellville, N.Y. 190.53
Steering wheel spun—broke wrist
Joan Casler, West Exeter, N.Y. 146.96
Knocked down by cow—broke toe
Frank Svet, Richfield Springs, N.Y. 1475.00
Auto accident—broke ribs
Erwin H. Schober, Potsdam, N.Y. 935.32
Fell off pony—broke arm
Charles Dunham, Hammond, N.Y. 1340.00
Saw kicked back—inj. stomach
Joseph Beretz, Middleburgh, N.Y. 240.99
Plank slipped—broke ankle
Carrie Schoonmaker, Waterloo, N.Y. 297.25
Missed step on stool—broke arm
L. Jay Dickson, Bath, N.Y. 607.84
Knocked off platform—inj. back
William C. Kilmer, Walton, N.Y. 205.57
Stepped on spike—inj. foot
Alexander Jackson, Riverhead, N.Y. 523.68
Wrench slipped—cut thumb
Gleyn Holmes, Owego, N.Y. 1032.14
Auto accident—broke ribs
John H. Dow, Groton, N.Y. 812.39
Fell off bin railing—inj. knee
Oliver G. Brown, Palmyra, N.Y. 1580.00
Motorcycle accident—broke leg
Nancy M. DeMay, Newark, N.Y. 369.95
Thrown from horse—broke arm
Royce E. Fisher, Sr., Warsaw, N.Y. 760.48
Hit by falling tree—broke ribs
Jessie Kinnan, Middlebury Center, Pa. 1453.57
Lifted garage door—broke back
Etta Herman, Windsor, N.J. 1135.71
Slipped on stairs—broke leg
Kenneth O. Cosh, Sussex, N.J. 1153.21
Auto accident—broke collarbone
Andrew L. Kuhre, Meriden, N.H. 1477.85
Tractor accident—broke ribs
Juanita B. Hornbeck, Whiting, Vt. 233.64
Attacked by bull—inj. thigh
John R. Hunt, Rochester, Vt. 1088.67
Slipped cranking tractor—broke jaw

Keep Your Policies Renewed

NORTH AMERICAN ACCIDENT INSURANCE COMPANY
(In New York State)
NORTH AMERICAN COMPANY
FOR LIFE AND HEALTH INSURANCE (In Other States)
GENERAL OFFICES: CHICAGO, ILLINOIS
SAVINGS BANK BUILDING ITHACA, NEW YORK



Messrs. Kolar (right) and Migdol study plans of the Roxbury Run development. Behind them is one of the townhouses under construction.

Townhouse development

A substantial chunk of rural land (330 acres) is being converted to a housing development among the rolling hills near Denver. So what, you ask . . . why should I be interested in what goes on way out there?

Well, it's Denver, New York . . . in northeast Delaware County, not far from Arkville. And the housing development, called Roxbury Run Village, is an unusual one. Planned are 500 "townhouse units," constructed in clusters of four to ten units, surrounded by the serenity of rural scenes. Nearby is another development created by the same people that operate the Roxbury Run Corporation . . . this one involving individual homes scattered through forest land, and called Roxbury Run Enterprises.

There are two housing concepts involved . . . **dispersal** in the case of Roxbury Run Enterprises, and **concentration** in the Roxbury Run Village. Lewis Kolar, executive vice president and treasurer of the Roxbury Run Corporation, comments, "Ecologists are now promoting greater density of housing in order to protect the open space **around** the settlements. Furthermore, higher densities help keep development costs down."

Costs of such developments require massive amounts of capital. An environmental-impact study, for instance, required by the state **before** construction starts, weighs in at $5,000. Mandated standards for sewage and water facilities are high.

Costs

Add to all this the cost of building an 18-hole golf course, giant swimming pool, and six tennis courts. And don't forget the most costly of all, the 500 living units themselves! A legal document setting forth the organization and legal ramifications of the RR Village Association, Inc. runs to 69 pages.

All people owning townhouse living units in the Roxbury Run Village must belong to this Association. Association bylaws, plus deed restrictions, create a type of zoning administered by the Association itself.

What benefits to a rural community accrue from such developments? For one thing, a substantial addition is made to total property assessment (and, therefore, tax base) in a township. Not many children go to local schools from the Roxbury Run residences, but substantial revenues are paid to the local school system.

Second Home

By the way, Lewis Kolar estimates that 80 percent of the residents of Roxbury Run Village will be "outsiders" interested in a second home, about 20 percent will be retired people. The megalopolis area around New York City is only two or three hours away by automobile.

Local businesses will also receive some stimulus from sales associated with the developments. Farms with attractive roadside stands usually do well selling to the "outsiders" seeking fresh produce.

"We want farms to continue operation in the area," Kolar comments. "This is part of the open space that appeals to the people living in the Village."

These people pay well to enjoy the peaceful countryside most farmers take for granted. More and more folks from the teeming cities are . . . and will be . . . seeking similar opportunity in the open spaces of the Northeast.

ALLIS-CHALMERS

WE CAN HELP YOU GROW.

New Jersey

Columbus
Art's Repair Shop
Elmer
Roork's Farm Supply
Route #77
Flemington
John M. Saums & Sons, Inc.
Route 31

New York

Adams Center
Talcott Falls Tractor Sales
Route #11
Alexander
Alexander Equipment
Buffalo Street
Auburn
Main & Pinckney
RD #6 Mutton Hill Road
Baldwinsville
R. Church & Sons, Inc.
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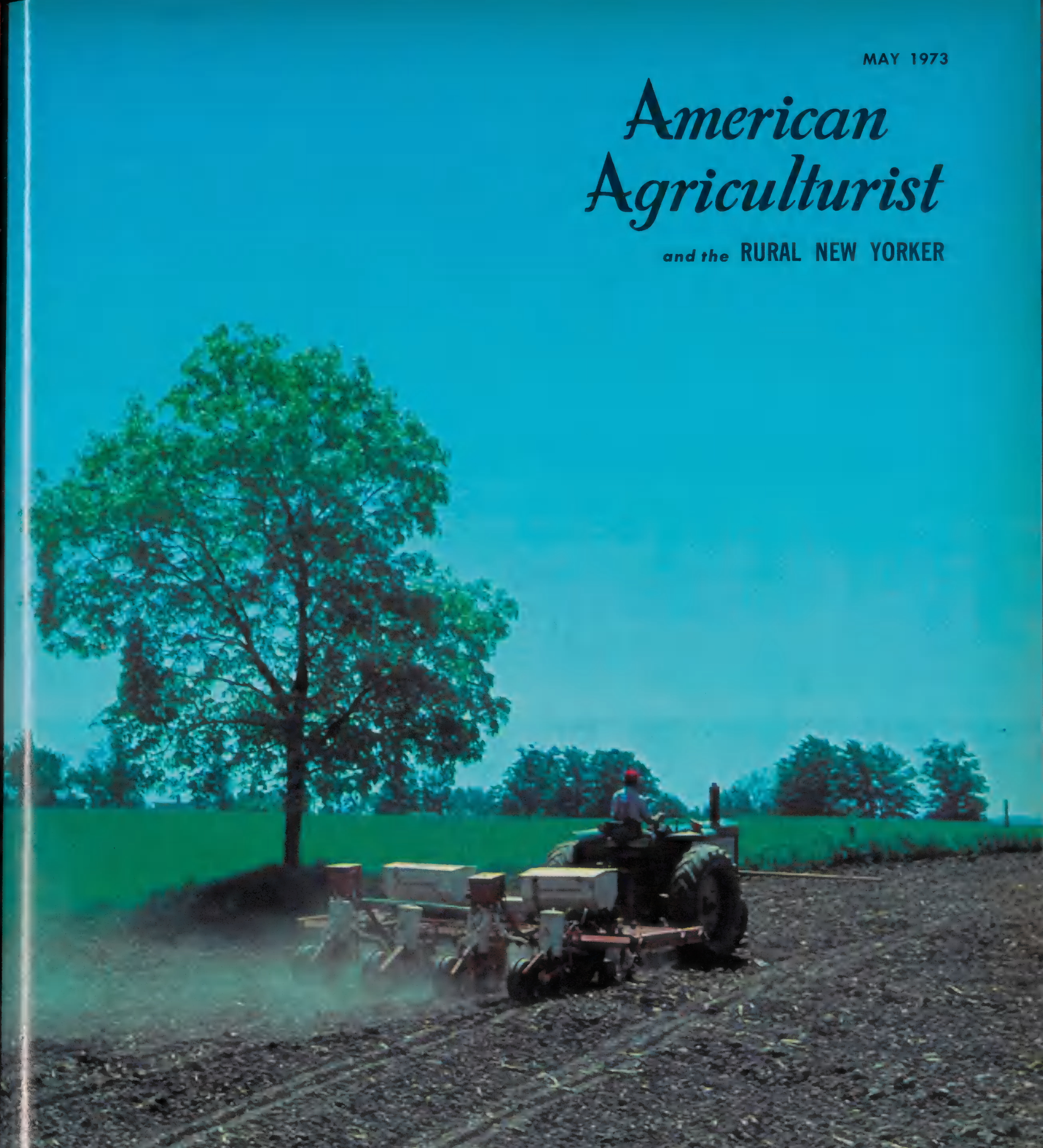
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OUR COVER

William Crego farms in Onondaga County near Baldwinsville, New York. Here he plants corn on a spring day vibrantly alive with the promise of a new growing season. Photo: Joseph Albino.

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THE CASE FOR HAYLAGE

WHEN Hurricane Agnes blew up from the Gulf of Mexico last June, many central New York State dairymen were just preparing to put up their first cutting of hay. Some were leary of the prospects for getting their forage crop baled successfully because the weather had already proved damp. But Agnes was the clincher. Field losses of hay rose to staggering proportions as the rain squalls swept across the region.

Farmers who were ensiling their forage crop as medium-moisture haylage were more fortunate than most. The haylage-making process enabled them to cut hay, wilt it for about 24 hours and ensile it immediately.

Yurkewecz

Howard Yurkewecz, Fultonville, was one of the few farmers in his area who was able to obtain full benefits from his alfalfa last summer.

"I cut hay three times in 1972, despite the bad weather," Yurkewecz said. "This was because I put it up as haylage. It's a fact that it would have been out of the question to bale hay most of last summer." Previous experience with trying to bale hay in rainy weather was one of the reasons that led Yurkewecz in 1969 to begin making haylage in an oxygen-limiting storage unit. Feeding his haylage along with high-moisture corn, he has achieved 1,000 pounds more annual milk production per cow than he experienced with previous methods of feeding.

Although damp weather interfered with Yurkewecz' harvesting of alfalfa from his 150 acres last summer, he was able to cut and ensile the crop in less than a week for each cutting.

"Because I was in the field at the end of May, I was able to beat most of the bad weather and complete the first cutting," he explained.

Yurkewecz maintains 75 cows on his 315-acre farm, and has a rolling herd average of 17,500 pounds of milk with a butterfat test of 3.6 percent. His modern freestall barn, constructed in 1971, was designed to operate in conjunction with two oxygen-limiting feed storage units, a 20×70-feet haylage structure and a 20×40 for high-moisture corn.



Howard Yurkewecz smells some highly-palatable haylage put up in spite of the wet summer of 1972.

Phalen

Bob Phalen, who farms near Stanley, was also able to get three cuttings last summer . . . one in June, another in August, and the last in September.

"Frankly, with Agnes blowing up here about June 23, I would have 'had it' if I'd tried to bale my hay," he pointed out.

Kept Moving

By the time conditions became really inclement, he had harvested all but one field of his 86 acres of alfalfa. However, as he explained, "We were able to ensile the last field of haylage about two days after cutting it. It would have taken an extra day of wilting to get hay ready to bale . . . and that extra day would have killed us."

Phalen feeds his cows "all the haylage they can eat" . . . about 50 pounds per day. He fills the bunk before milking in the morning and after milking in the evening.

"When I started dairying, I had 36 cows. Now I have 94," he said. "Baling hay was okay for a small operation. But when you multiply 36 by three there just wouldn't be enough hours in the day to get the job done. And when I started out, I was using a fork as my only silage tool. My feeding is now automated, and I have a lot more leisure time."



Bob Phalen's farm is in an area where alfalfa grows well. He's admiring some strong regrowth.

Olcott

In the rolling country around Fabius, the weather was especially bad last summer, so that Carl Olcott found it impossible to bale his second-cutting alfalfa after filling his storage structure with the first crop.

"It just didn't work out," Olcott recalled. "With the recurrent rains, there wasn't **time** for the hay to dry. Fortunately, though, we were able to feed from our Harvestore fast enough so that we had room to ensile the second cutting.

"There were no problems in harvesting the forage for haylage at all," the dairyman pointed out. "There were a few soft spots in the field that I had to steer around with my windrower, but not many. We have a light, gravelly soil in this area that doesn't get too soggy."

In the past, the Fabius dairyman has culled any daughters of cows that didn't produce an average of 14,000 pounds of milk annually. However, during the rapid expansion that accompanied his switchover to haylage, he has retained all his heifers to keep up with the growth of facilities.

"I will say this," he summed up. "If I had kept on baling hay, the expansions we've made over the past couple of years wouldn't have been possible . . . to say nothing of the problems avoided by making haylage in an exceptionally bad year like 1972."

The Olcotts own two oxygen-limiting structures, a 20×30-feet unit for high-moisture corn and a 20×70 forage structure.

(Continued on page 6)



Carl Olcott built a new barn, including this milking parlor, within the last couple of years.

Food For The Spirit



by Robert L. Clingan

"Give us this day our daily bread." When we pray that part of the Lord's Prayer, we are recognizing God's concern for each of us that our physical needs shall be met. Bread is the symbol of that which sustains our bodies in good health so that our souls will have a chance to develop as they should during our life here on earth.

Jesus showed this concern for human needs when He fed the loaves and fishes to the hungry multitude stranded across the lake from home when supper time came. He showed His concern for people's physical needs when He healed so many of them. The lame walked, the blind saw, and the deaf heard. Many who had been ill for years had good health, some for the first time in their lives.

Advice

At the same time, Our Lord warned His disciples not to be overly concerned with hoarding resources against future needs. He told them that God had ways of providing for the essential needs of all His children. In His teaching, Jesus emphasized living life a day at a time. Note the almost redundant use of the word "day" . . . "give us this **day** our **daily** bread."

We are not to fill barns with hay and grain for livestock we may never feed. We are not to feverishly pursue the amassing of money we may never have a chance to spend. Human needs, daily living and quality of life, these are to be the concerns of the prayer of a Christian.

Each Day

Years ago, Alcoholics Anonymous learned that an alcoholic cannot promise sobriety for a lifetime. He can only promise that with God's help, his own determination, and the help of those around him, he will remain sober a day at a time.

Dr. Winifred Garrison, a college president whose lungs became infected with tuberculosis, went to the Southwest to battle for life and health. There beneath the desert sky, he wrote a most interesting account of his philosophy of life. In it he said, "Life is a day and a day and a day. I will not poison a moment of it with anger, or envy, or fear."

We are to pray to God for our daily bread . . . this day, and every day . . . but only for a day at a time.

CAMOUFLAGE

by Donna Evleth

Just like the kids, I grub in dirt.
I dig with hoes and trowels.
I, too, get mud upon my shirt.
And sometimes on the towels.

Like them I sprinkle with the hose,
Having my drippy fling.
But there's a difference, each one knows.
I call it gardening.



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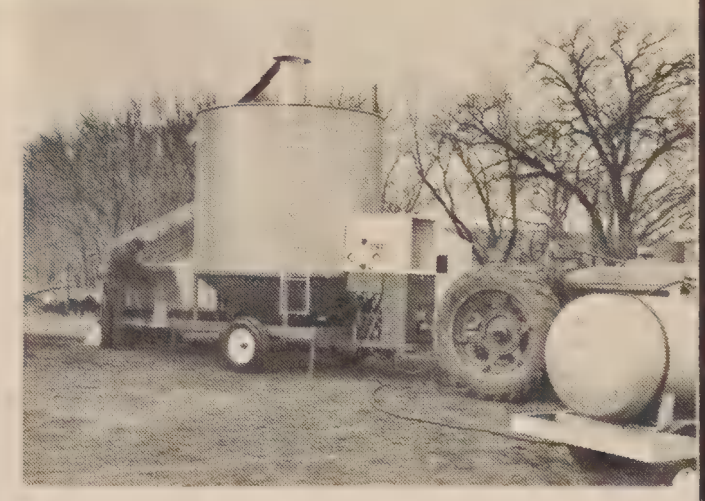
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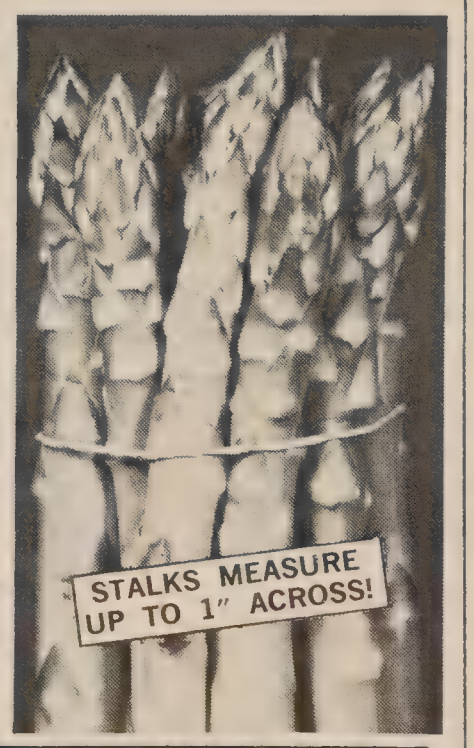
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The Case For Haylage . . . . .

(Continued from page 4)



Kurt and Ruth Ziefle found 1972 to be a good year, in spite of wet weather.

Ziefle

A couple of counties west of the Olcott place, near Trumansburg, Kurt and Ruth Ziefle had a very productive year in 1972.

"We maintained a rolling herd average of 15,554 pounds, and had a butterfat test of 3.7 last year," said Ziefle. "The worst year for a lot of people in this area was our best one yet, and I would attribute this to the fact that we harvested our 80 acres of alfalfa last summer as haylage rather than trying to bale it."

The Ziefles purchased a structure to store their alfalfa as haylage last year as soon as it became apparent that the weather would make conventional harvesting methods either difficult or impossible.

The Trumansburg family migrated from Germany to the United States several years ago.

"We chose the Finger Lakes region to set up our dairy business because the terrain reminded us of the country we grew up in," Ziefle said.

The Ziefles, like the Olcotts, own a 20×30 storage unit for high-moisture corn and a 20×70 for forage.



by Amos Kirby
New Jersey Editor

Boycotts and farm prices

THE fashionable thing in recent weeks has been to boycott meats and other farm products. The consumer cry has been, "Food prices are too high."

No one can object to boycotts. I recently boycotted four models of automobiles because of cost, and then settled for a more modestly-priced car.

The public, which is on the verge of demanding a freeze on the prices of raw products, ignores rising costs on the farm . . . and at the same time refuses to recognize essentials involved in the function of supply and demand. Consumers fail to comprehend both the price-influence of reduced supplies due to crop losses caused by unfavorable weather, and the growing demand from other nations for food from the United States.

Pork prices are bound to be higher at the supermarket when Japan is paying 78 cents per pound FOB San Francisco for ham hocks. That three-pound per capita increase in beef consumption last year represented nearly one million more cattle than the market found available. Hogs at $38 and beef at $46 per hundredweight probably show a profit to the producers, but what about the marginal prices for meats that have prevailed during the last 20 years?

With certified soybean seed selling this spring at $11 per bushel, and white potato seed at $10 per hundredweight in carload lots, there **has** to be a shortage in supplies. One often fails to realize that these prices discourage expansion in plantings.

Even if Maine potato growers received between $5 and $6 for table spuds in recent weeks, any profit on the 1972 crop went to pay bills that hung over from other unprofitable years.

In recent years, since retiring from radio, I have traveled more than a quarter of a million miles at my own expense . . . and I have yet to find any area or any major commodity that has returned the grower his cost of production plus a return on labor and investment comparable to other businesses.

Every farmer needs sufficient returns to: (1) pay his production costs (2) keep up his buildings and equipment (3) lay aside sufficient money to cover his depreciation (4) pay himself $100 a week (5) support his family, and (6) pay a reasonable return on his investment.

Farmers are finally experiencing

their first opportunity in 20 years to be on a par with industry. Most of those who are sponsoring boycotts want **cheap food,** and have no concern for farm income whatsoever.

PLANTING SOYBEANS

University of Delaware agronomists have some timely suggestions on planting soybeans this spring. With seed cost at an all-time high, one is tempted to reduce the seeding rate. They have found that with a good weed control program, plants spaced six inches apart will yield about as well as plants one inch apart.

A warning is added. If the soil is heavy and crusted, the closer-seeded beans can help each other break through the sealed surface of the soil.

FERTILIZER SHORTAGE

With a fertilizer shortage now a reality, and prices definitely higher, growers may find that it will pay to give special attention to applying what the crop actually needs. For years, some growers have been applying more fertilizer than the crop really requires. One of the materials that may be reduced is phosphorus, especially on corn. Base your decisions on soil tests and the known requirements of any crop.

GAS SUPPLY

It might be a good idea to own a contract with a reliable petroleum-product supplier for your 1973 season's fuel requirements.

If forecasts are reliable, enough fuel for tractors this coming season may not always be available when wanted. Warnings in such respected papers as *The Wall Street Journal* predict that unless the gasoline situation greatly improves, one can expect a scarcity come midsummer.

FEED HAY

Although hay supplies are dwindling, continue to feed hay to dairy cows out on rye or permanent pasture. The succulent spring pastures are an excellent source of nutrients for milk production, but this forage moves through the digestive system very rapidly.

College specialists suggest feeding up to five pounds of hay per animal per day.

GRAPE ACREAGE

Both New Jersey and Delaware people report on potential expansion of grapes for making wine. Wine consumption is increasing, and growers are seeking new crops to plant.

Both states have grape soils, but one needs to take a second look. In 1972, California increased its wine-grape plantings by more than 40,000 acres, and they have the know-how as well as the winners.

WAGE CONTRACT

The major features of the 1973 Puerto Rican labor contract are as follows:

1. Guaranteed hourly wage of $1.85.

2. Two-way transportation for all workers who complete their contracts.

3. An off-job insurance coverage for workers, including medical benefits and life insurance. The employer will pay $1.35 per week for each employee to help finance the program, with the worker paying 65 cents per week.

4. All workers will be covered by workmen's compensation.

5. Workers are guaranteed 120 hours of work for each three-week period.

6. Housing will be provided at no cost to the workers.

The $1.85 per hour of guaranteed wages is 10 cents an hour above last year. On an average farm, this is the equivalent of about $100 per week additional production expense.

WATER SUPPLY

The Farm Bureau is warning Garden State employers of workers from Florida to do two things in view of the typhoid outbreak there:

1. Check with a physician or local health official as to the health of every worker.

2. Have water supply checked and approved

These are listed as a must to prevent the problems that have developed in Florida.

MEET PRESTON WARE

Preston Ware of Salem, New Jersey, is the top soybean grower in the states of New Jersey, Delaware and Maryland. He produced in 1972 a yield of 60.8 bushels of beans per acre.

This compares with a normal yield of 25-30 bushels. For his achievement, he and Mrs. Ware received an expense-paid trip to Europe as part of a soybean promotional program.

The winning field was planted to the Kent variety. Land was treated with Lasso for weed control, and certified seed was sown at the rate of 48 pounds per acre. No fertilizer was applied (previous crops of peppers and tomatoes were heavily fertilized). Beans were planted in rows 18 inches apart.

DAIRY REPLACEMENTS

The Farm Bureau-sponsored dairy replacement program, under the direction of Dr. George Webster, is providing dairymen with high quality animals for replacements or expansion. Dr. Webster predicts a market for upwards of 1,000 head the program's first year.



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by Bill Pardee

Grow more protein at home

"**GROW** your own" protein may become the name of the game for livestock and dairymen over the next several years. We've all seen protein feed prices fly through the roof recently, and they're not likely to come down much for some time. With purchased feed costing an arm and a leg, it's a good time to examine protein-producing possibilities for the home farm.

And to me, this focuses our attention squarely on **alfalfa. There's no other crop that can produce more pounds of usable protein per acre.** Soybeans aren't even close, running less than half of alfalfa in per-acre protein potential.

Alfalfa, well managed, can kick out 5-7 tons of high-quality feed per acre, running 16 to 22-percent protein. Push your pencil on that and you'll see alfalfa's possibilities range from 1,800 to over 3,000 pounds of protein per acre. Plug in the latest cost of a ton of purchased soybean oil meal and you'll get some estimate of the value of your alfalfa crop as a protein producer.

But shooting for top protein yields can put a different twist on our alfalfa management programs. To get high protein production we may pay less attention to long life of stands and maximum dry matter yields. Not that we're abandoning these as goals, we're just deciding to gamble a bit more and count on

WINTERKILL

Check now for winter damage in your alfalfa. After the open winter we've just been through, it's likely some farmers may find extensive alfalfa damage. Growth should be well under way by the time you read this, making it a good time to check your stands. Look for alfalfa crowns that have started vigorous growth with at least 2-3 stems per crown.

Count plants per square foot, on a random basis through your field. A square, wooden frame, 1 foot in each direction is easy to make, and handy to throw ahead of you as you walk the field. Try for a random sample, with 20-30 counts taken at different places in the field.

Four to five plants per square foot is plenty, while two to three can do the job in an older stand. If you're averaging one plant per square foot, you're borderline. Keep it, if you'll need the hay, and you'll get a passable yield, particularly if there's grass in the stand. Any fields that average less than one alfalfa plant per square foot probably aren't worth saving and should be considered candidates for this year's corn crop.

Average counts are fine, but frequently it's all or nothing, with some parts of the field with good stands and others none. Here it's strictly a judgment factor on your part, on whether to save part or all the field.

In winter-damaged fields that seem worth saving, hold off your time of first harvest. Cut them last to allow them time to recover, to re-establish roots and to heal winter wounds. If they're not too hard hit, they may surprise you with how much they come back.

Heaving will likely be a problem in some fields. A little heaving, with an inch or less of root showing above ground, normally won't hurt much, if you delay a bit on your first cutting. But plants heaved 2 inches or more out of the ground are up where you'll be damaging them with your harvester. Such plants also have severely damaged root systems. They may produce a first cut, if they're not too far out of the ground, but will probably succumb thereafter. Plants heaved so far out that they fall over are done for.

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The real test, however, comes in *your* own orchard, under *your* conditions and *your* spray program. Now that it's cleared, we hope you'll give BENLATE a try this season.

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careful management to keep our crop growing strong.

To focus on these shifts, we've pulled together research evidence and farm experience to point up some of the do's and don'ts of shooting for higher-protein forages.

Early-Cutting

First, high-protein management means **early cutting**. You've heard lots about the value of early-cut forage. Usually folks talk about early flower, or one-tenth bloom, as the time to cut. But by this stage, we've already lost in percent protein.

Alfalfa in **mid-bud** stage will run 20-23 percent crude protein (in its dry matter). By one-tenth bloom this may have dropped to 18 percent, and by full bloom it's down to 16 percent or below.

Biggest factor in this slide is the changing makeup of the alfalfa plant, as it gains in stem weight, and begins to lose lower leaves.

And make no mistake, it's leaves that carry the high protein content, as well as much of the phosphorus, calcium and other essential elements required by cattle. Stems rank low in these categories, and as they develop they pull down the average content of the whole plant.

So high protein means an early first cut, preferably in bud stage, but certainly by early flower. And since you can't cut all your hay in a day, you should probably start with the first buds, rather than the first flowers. Start in better drained fields, where growth starts earlier, preferably fields you did **not** cut late last fall. Start early, and you'll have a chance of finishing before alfalfa is fully flowered while your protein percentage is still high.

Using buds and flowers as indicators is easy to describe, but can be harder to work out in practice. Cool, cloudy weather some years can hold off flowering for several weeks.

Top Growth

Another indicator is simply the total amount of top growth that's developed. If it's getting tall and rank, you'd better get it before it lodges, flowers or no. Flat, matted alfalfa is no fun to harvest and the down stuff reduces yield and holds back regrowth.

In the end, the most practical guides are probably the calendar and your labor load. There are only so many days available for high protein hay harvest . . . and once they start passing, you can't get them back.

The days tick by fast as you move from late May into June, and your protein level goes with them. Best date depends on where you are. But mid- to late-May is time to start in Pennsylvania and the last week in May and the first week in June are times to go over most of New York and New England.

Top protein production calls for more than just being quick on the draw with the harvester. It may mean additional investment in storage facilities and harvest equipment. Drying hay in late May or early June is usually a poor gamble.

Most men who harvest this early plan to wilt, chop and put their forage up as silage or haylage. Here they gain two ways, by reducing the risk of weather damage, and holding on to high protein leaves.

At the same time, they mechanize one of the hardest jobs on the farm. But they also run up their investment in storage structures. So plan your financing carefully. And be sure, as nice as it might be, that it's something you can afford.

Later Cuts

Later alfalfa cuts should come as frequently as possible, consistent with long stand-life. This means you can cut every six weeks (or 42 days) in New York and New England, as short as 35-38 days in Jersey, southern Pennsylvania and Maryland. You'll get high quality feed from these cuts and yet maintain your stands, assuming you're doing other things right.

Cutting more often, say 30 days in Pennsylvania, 35 days in New York, may be tempting and it would boost your protein. But this can hurt your stands, and thin them rapidly by year's end. Alfalfa needs time to restore root reserves for future growth and it takes time to get this done.

Top protein production will put maximum stress on your crop, so success depends on keeping your plants vigorous, well supplied with nutrients and relatively free of pests.

This means planting vigorous varieties that have the capacity to bounce back after frequent cutting. Saranac and Iroquois are two outstanding strains bred at Cornell; a number of new private varieties also look good in the Northeast.

Soil fertility is more important

(Continued on page 10)



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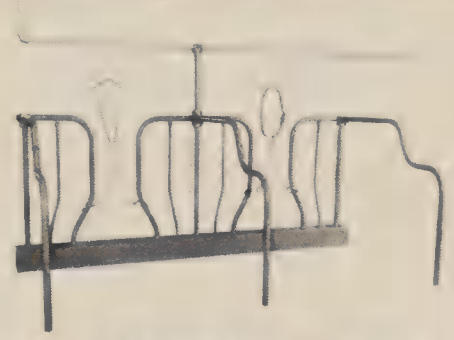
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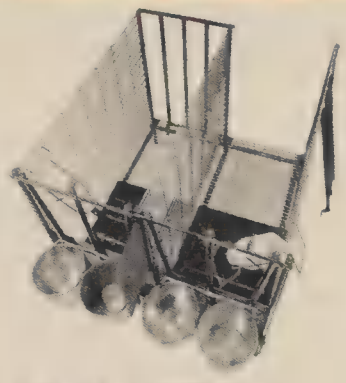
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Protein . . . . .

(Continued from page 9)

than ever. Potassium is a **must** for fast-growth alfalfa, and each ton taken off will remove around 40 pounds or so of this nutrient. Top-dressing becomes all-important . . . or you'll have nutrient-short plants that seem to sit there not growing, not putting out the new leaves needed for high protein, and finally give in, easy prey for adverse elements.

Insect control is more important than ever, because it's the high-protein leaves most bugs go after, whether it's alfalfa weevils or leafhoppers. With early removal of the first cut, you should consider a protective spray to knock back these pests and get your second cut off to a good start. And watch closely for leafhoppers in the second cut.

Leaf diseases, on the other hand, will be less of a problem since you'll be harvesting before these get far along. And this can help a lot, since these develop rapidly in mature alfalfa, knocking off the lower leaves, and dropping protein on those above that become infected.

Top protein management really isn't too far off from what we've been considering as top alfalfa management. The major change is increased emphasis on **early cutting** to gain maximum protein percent, **silage harvest** to save leaves and maintain quality, and **sufficient care of the plant** to keep it growing vigorously despite this extra push. With this year's protein prices, it's a good way to hold back on the feed bill, at least a little bit.

CORN CHAMP

New York's champion in the 1972 Project: 200 national corn growing contest sponsored by the producers of Funk's G-Hybrids was Gerald Boice of Tivoli. His winning yield of 145.26 bushels per acre was made with Funk's G-4444.

This above-average corn grower spring plows his corn land. His total fertilizer program included 197 pounds of nitrogen, 65 pounds of phosphate, and 75 pounds of potash per acre, actual . . . applied as preplant, starter and sidedress.

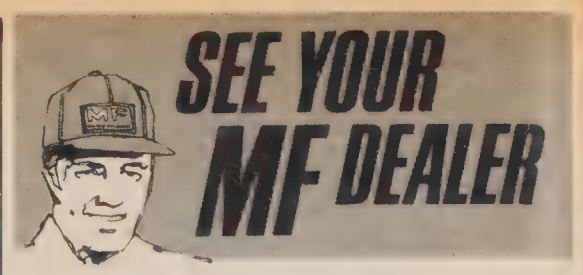
The prize-winning field was planted on May 26 in 38-inch rows at a seeding rate of 25,500 kernels per acre. A combination herbicide was applied at planting, and the contest corn was cultivated once during the growing season.

At harvest on October 19, plant population was 23,000 per acre, and moisture level of the corn was 27.5 percent.

LEAST-WANTED WEEDS

The top ten "public enemy" weeds, identified in a 50-state survey by the USDA, are: pigweed, crabgrass, quackgrass, foxtail, thistle, ragweed, lambsquarters, nutsedge, johnsongrass and chickweed.

These led the compiled list of 537 weeds because they infest large acreages of farm land in all regions of the country; they occur in more than 25 of the 50 states; and they are important problems in more than 50 percent of 49 crops and land-use situations.



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Protection for your horse

THE warm weather in early March gave a lot of people spring fever, and it seemed as though every farmyard had a horse trailer, either new or being painted to look like new. This means a lot of horses will be moved from place to place during the next few months . . . a greater intermingling of horses than we have ever seen before. This number of horses means good competition at shows, trail rides and races, but it also means an unprecedented exposure to disease.

The seriousness and threat of two of these diseases, Venezuelan equine encephalomyelitis (VEE), and equine infectious anemia (EIA or swamp fever) have caused many horse owners to request stricter health regulations for shows, races, or any movement of horses that will give these and other diseases a chance to spread.

Your own veterinarian has been concerned with this, as have state and federal veterinarians, and information is available to help you know what protective "shots" and tests your horses should have and what health papers they will need to travel to these events, both within your own state and between states.

For 1973, the Equine Practice Committee of the New York State Veterinary Medical Society recommends the following vaccination program, under the direction of your local veterinarian, for all horses, ponies, and donkeys over six months of age:

1. **Tetanus (lockjaw).** Initially requires two doses 4-8 weeks apart, with yearly booster dose thereafter.

2. **Venezuelan equine encephalomyelitis (VEE).** Requires one dose only, good for three years or longer.

3. **Eastern or western equine encephalomyelitis (EEE, WEE).** Requires two doses each spring before mosquito season. With one type of vaccine, dose is repeated in 7-14 days; with the other type, dose is repeated in 4-8 weeks.

4. **Equine influenza** vaccine is recommended for weanlings, yearlings and horses that are shown, raced or in general brought in direct contact with groups of strange horses. Initially requires two doses 4-12 weeks apart with yearly booster dose.

5. **Equine viral rhinopneumonitis (viral abortion).** Protection is by an intranasal "planned infection program." It should only be carried out on those farms presently on the program, or where specifically recommended by your local veterinarian. The owner has to understand the abortion risk involved whenever this "planned infection program" is initiated on a given farm. (An injectable modified live virus vaccine may become available in 1973. It is not available at present).

Vaccines are available for other equine diseases, including strangles. However, they should be used only upon advice and under the direction of your local veterinarian.

Modifications

The only remark I have about these recommendations is that many practicing veterinarians feel that for most horses, once the two injections of EEE and WEE have been given, only one injection is needed the second year, but that if an outbreak of EEE or WEE occurred in your immediate area, the second dose could be given. On extremely valuable horses, and for horses traveling to areas where EEE or WEE has been seen year after year, veterinarians would still recommend the two injection boosters.

Your own veterinarian may modify these recommendations because he knows his specific area best. A vaccine is available that will immunize against EEE, WEE and tetanus simultaneously. This cuts cost, saves time, and apparently is just as effective as a separate vaccine for each disease.

New York State has been a leader in equine disease control, so I will list that state's requirements first. If you can meet New York's requirements, you can meet those of almost any other state.

However, whenever a horse crosses a state line, he must have accompanying him health papers issued by a veterinarian in the state of origin, meeting the requirements of the state of destination. Before moving horses, check with your local veterinarian and the show rule book far enough ahead to have correct papers made out . . . and, in some cases, countersigned by state authorities.

New York

The following New York State requirements are a summary and conceivably can be changed and made stricter in some states or for individual shows:

A. Health requirements for the control and suppression of infectious or communicable disease relating to domestic animals are hereby adopted to be observed and enforced by every fair or exposition which receives money from the state pursuant to Article 24 of the Agriculture and Markets Law, and by the New York State Fair.

B. The Commissioner of Agri-

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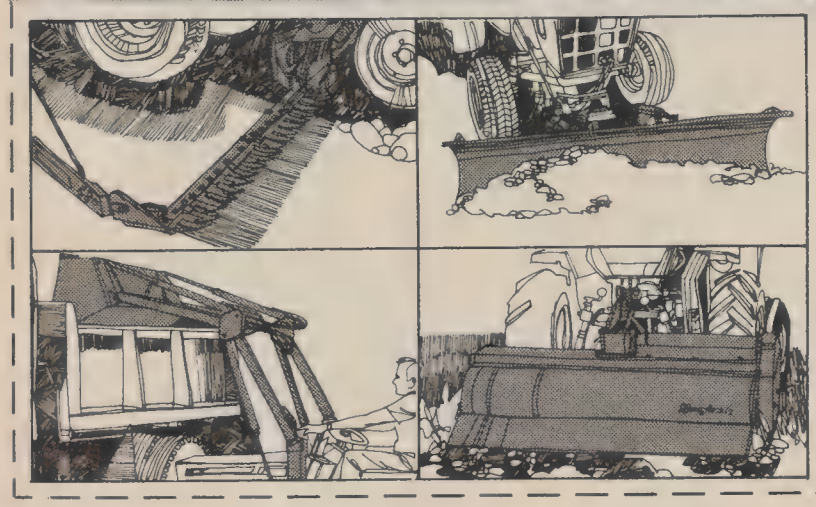
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culture and Markets or his authorized agent may deny admission to, or require segregation or removal from fair premises of any animal found to be affected with or exposed to any communicable disease whether or not such disease is specifically mentioned in these regulations, if in his opinion such action is necessary for the protection of other exhibits.

C. All exhibits must be accompanied by health certificates signed by accredited veterinarians. Certificates must be approved by the official veterinarian in attendance at the fair before the animals are eligible for exhibition or competition.

D. Each entry blank and health certificate must carry the registration number of each animal entered, together with such other positive means of identification as may be available, including ear tag numbers, tattoos, brands, ear notches, etc.

E. Any animal to be exhibited from out of state must meet New York State import regulations.

F. Animals under quarantine for any reason may not be exhibited.

Horses

Out-of-state horses must be examined by an accredited veterinarian within 10 days prior to entry into the state, and must be accompanied by a certificate of equine examination signed by said veterinarian. This certificate must include the rectal temperature of the horse. Horses carrying a temperature of 102 degrees F. or more are excluded from entry or exhibition.

Exhibitors on return home from fairs shall keep show animals segregated from herd or flock for a period of at least two weeks.

With the exception of colts less than six months of age, no horse or other member of the family equidae shall be admitted to or permitted to be present on the premises where an agricultural fair or the New York State Fair is held during the period of such fair unless the owner or custodian of the horse has filed with the secretary of the fair a certificate issued by a duly licensed veterinarian showing that the horse or other member of the family equidae has been vaccinated to prevent the disease known as Venezuelan equine encephalomyelitis during the calendar year in which the fair is held or has been so vaccinated during one of the three calendar years preceding the year in which the fair is held, except that the vaccine must have been administered at least 14 days prior to the admission of the vaccinated animal to the fair premises.

Coggins Test

A negative test for equine infectious anemia is required. On and after July 1, 1973, no horse or other member of the family equidae six months or more of age shall be admitted to or permitted to be present on the premises where an agricultural fair or the New York State Fair is held during the period of such fair unless the owner or custodian of the horse has filed with the secretary of the fair a certificate or statement showing that the horse or other member of the family equidae has been negative to an agar gel immunodiffusion test (Coggins test) for equine infectious anemia (swamp fever) during the calendar year in which the fair is held or during the preceding calendar year.

The agar gel immunodiffusion test must have been conducted by a laboratory approved for the purpose by the USDA and the NYS Department of Agriculture and Markets.

The certificate or statement required shall include a complete identification of the animal, the date of the test, and the name and address of the laboratory which conducted the test. The certificate or statement must be signed by (a) a duly licensed veterinarian or, (b) the director of the laboratory where the test was conducted, or (c) the chief animal health officer of the animal's state of origin, or (d) in the case of a horse owned or harbored by the State of New York, by a county agricultural agent.

Pennsylvania

Horses, mules and asses to enter Pennsylvania shall be accompanied by a health certificate prepared by a licensed, graduate veterinarian and approved by the proper livestock sanitary official of the state of origin, giving an accurate description of the animal and a temperature recording at the time of examination and results of any other test which may have been conducted on the animal. The certificate must indicate freedom from evidence of infectious or transmissible disease and must be issued not more than 10 days from date of arrival at Pennsylvania destination.

Rhode Island

In Rhode Island, state regulations are waived for exhibition purposes in favor of those proposed by the sponsors of the individual shows.

New Hampshire

All that is required for horses to move into New Hampshire is a certificate of health with individual identification of each horse. No permits or vaccinations are required at the present time.

Massachusetts

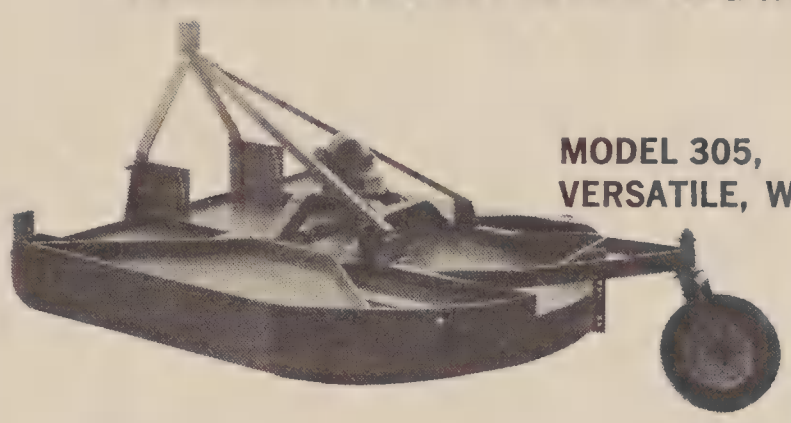
A health certificate signed by an accredited veterinarian must accompany all shipments of horses moving into Massachusetts for show purposes. The health certificate must state that the animal or animals to be shipped are free from all contagious or infectious diseases, and do not originate from a quarantined area, or an area where a contagious or infectious disease is officially

(Continued on page 15)

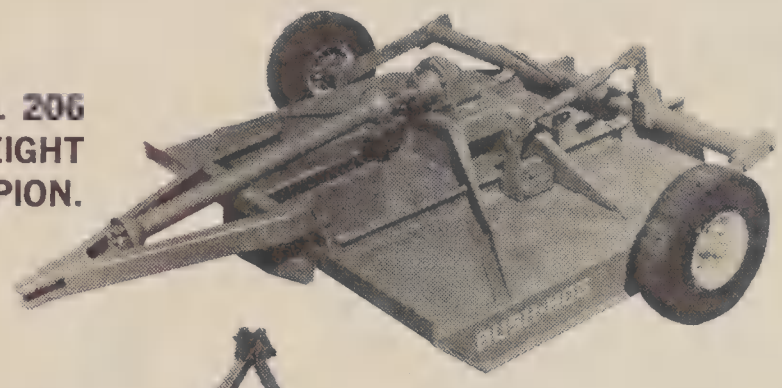
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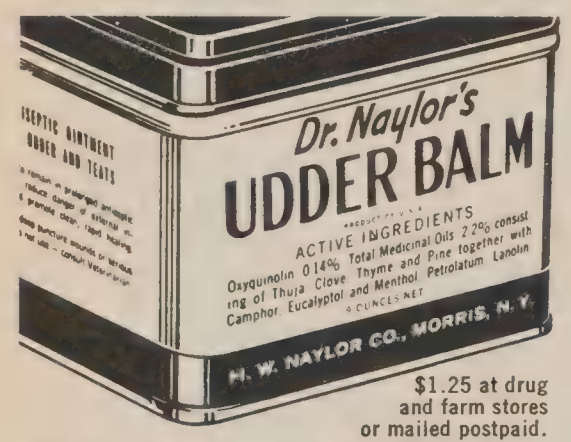
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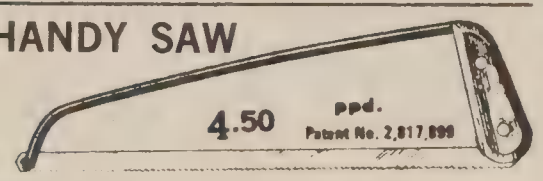
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Horse judging contest

FIVE pictorial horse judging classes were published in the February 1973 issue of AMERICAN AGRICULTURIST in a contest that closed April 15. Competition was open to residents of the New England States, New York, New Jersey, Delaware, Maryland and Pennsylvania.

The suggested official placings, scoring key and reasons were prepared by Professor Emeritus H. A. Willman of Cornell University, Ithaca, New York, in collaboration with: William Haughton, Oyster Bay Cove, New York; Harry Moss, Geneseo, New York; Donald Shattuck, Pittsford, New York; Ronald Wood, Ballston Spa, New York; John Briggs, Ithaca, New York; Professor James Kiser, Ames, Iowa; Professor Melvin Bradley, Columbia, Missouri; and William J. Plush, Trooper, Pennsylvania.

The management of the judging contest deeply appreciates the cooperation of the many persons who made pictures available for the 1973 classes.

Class 1

We placed this class of horses 1-4-2-3, having considered 1 and 4 a top pair. We liked 1 over 4 on sharpness, quality and overall balance. Number 1 is cleaner in the neck, more prominent at the withers, and stands more squarely on the feet and legs. We grant that 4 has more muscling in the region of the arm, forearm and quarters.

In the middle pair, we liked 4 over 2 because 4 has more character and follows 1 more closely in type. Number 4 is more expressive about the head and longer in the neck. We grant that 2 is deeper in the body and stronger and more smoothly turned over the top, yet 2 is too thick in conformation to place higher in this class.

In our bottom pair, we placed 2 over 3. We liked 2 over 3 on overall balance. Number 3 is cleaner in the throttle, longer and leveler over the croup and more correct in the set of hind legs. Although we grant that 3 is more upstanding and longer in the neck, he is too steep in the croup and too faulty on the hind legs to go higher.

Class 2

We placed this class 4-2-3-1 having considered 4 and 2 a top pair We placed 4 over 2 because 4 is more clearly defined at the withers, more correctly turned over the croup, stands more correctly on the hind legs and has more overall balance. We grant, however, that 2 has a little more body and is a bit longer and thinner in the neck.

In our middle pair, we placed 2 over 3 because she follows 1 more closely in type. Number 2 is taller, has more style and character, is stronger in the top, longer in the croup and straighter on the hind legs as viewed from the side. We would grant that 3 has more slope of shoulder and more muscling in the region of the forearm and gaskins.

In the bottom pair, we liked 3 over 1 on style and sharpness. Number 3 is cleaner in the neck, sharper and more prominent at the withers and more heavily muscled. We would grant that 1 is more attractive about the head and stands more squarely on the hind legs.

Class 3

We placed this class of horses 3-2-1-4. We liked 3 over 2 on shortness of back, correctness in the turn

(Continued on next page)

SCORING KEY

Each class has 24 possible variations in arrangement of individual horses from top to bottom of the class. Each variation is listed, along with the number of points to be scored for that choice. For example, if you arranged Class 1 as 4-1-2-3, your score for that class is 48 points.

Class 1					Class 2					Class 3					Class 4					Class 5				
1	4	2	3	50	4	2	3	1	50	3	2	1	4	50	2	1	3	4	50	4	1	3	2	50
1	4	3	2	42	4	2	1	3	43	3	2	4	1	47	2	1	4	3	45	4	1	2	3	43
1	2	4	3	45	4	3	2	1	45	3	1	2	4	42	2	3	1	4	43	4	3	1	2	47
1	2	3	4	32	4	3	1	2	33	3	1	4	2	31	2	3	4	1	31	4	3	2	1	37
1	3	4	2	29	4	1	2	3	31	3	4	2	1	36	2	4	1	3	33	4	2	1	3	33
1	3	2	4	24	4	1	3	2	26	3	4	1	2	28	2	4	3	1	26	4	2	3	1	30
4	1	2	3	48	2	4	3	1	47	2	3	1	4	47	1	2	3	4	48	1	4	3	2	45
4	1	3	2	40	2	4	1	3	40	2	3	4	1	44	1	2	4	3	43	1	4	2	3	38
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4	2	3	1	26	2	3	1	4	24	2	1	4	3	22	1	3	4	2	25	1	3	2	4	22
4	3	1	2	25	2	1	4	3	25	2	4	3	1	30	1	4	2	3	29	1	2	4	3	23
4	3	2	1	18	2	1	3	4	17	2	4	1	3	19	1	4	3	2	20	1	2	3	4	15
2	1	4	3	38	3	4	2	1	37	1	3	2	4	31	3	2	1	4	34	3	4	1	2	39
2	1	3	4	25	3	4	1	2	25	1	3	4	2	20	3	2	4	1	22	3	4	2	1	29
2	4	1	3	36	3	2	4	1	34	1	2	3	4	28	3	1	2	4	32	3	1	4	2	34
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3	1	4	2	14	1	4	2	3	16	4	3	2	1	22	4	2	1	3	19	2	4	1	3	18
3	1	2	4	9	1	4	3	2	11	4	3	1	2	14	4	2	3	1	12	2	4	3	1	15
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3	2	1	4	2	1	3	4	2	3	4	1	3	2	3	4	3	2	1	3	2	3	4	1	7
3	2	4	1	0	1	3	2	4	0	4	1	2	3	0	4	3	1	2	1	2	3	1	4	2

of top, sharpness at the withers and because she is more heavily muscled. We grant that 2 is a bit more pleasing through the head and neck and more correct in her feet and pasterns.

In our middle pair, we liked 2 over 1 on symmetry and balance. Number 2 is leveler over the croup, deeper in the rear flank and stands more correctly on her feet and legs. We grant, however, that 1 is sharper and more prominent at the withers and shorter and stronger in the back.

In our bottom pair, we easily placed 1 over 4 on underpinning, style and quality. Number 1 is cleaner in the neck, stronger in the back, flatter and cleaner in the hocks and has more slope to the pasterns. We grant that 4 is leveler in the croup and deeper in the rear flank, yet we consider 4 too low and long in the back and too coarse in the bone to place higher.

Class 4

We placed this class of horses 2-1-3-4. In a close placing, we liked 2 over 1 because 2 shows more style and balance. Number 2 is more smoothly turned over the top, leveler in the croup, stands more correctly on the hind legs and is deeper in the rear flank. We grant, however, that 1 is higher at the withers, stands more correctly on the front legs and is more heavily muscled in the region of the stifle.

In our middle pair, we easily placed 1 over 3 because he follows 2 more closely in type. Number 1 is a taller horse that has a longer neck and he is longer and more smoothly turned over the croup. We grant that 3 is deeper through the body and in the rear flank.

In our bottom pair, we liked 3 over 4 on style, character and scale. Number 3 is a taller horse that is more pleasing about the head, cleaner in the throat latch and more correct in the set of hind legs. We grant that 4 is more smoothly turned over the top, yet we consider him too short in the neck, too thick in conformation and too faulty on the hind legs and rear pasterns to place higher in this class.

Class 5

We placed this class of horses 4-1-3-2. We placed 4 over 1 because he has more character, more slope to the shoulder, is closer coupled and more powerfully muscled. We would grant, however, that 1 is a little deeper in the rear flank and in his heels.

In our middle pair, we placed 1 over 3 on style and overall balance. Number 1 is sharper and more prominent at the withers, and more smoothly turned over the top, leveler in the croup and deeper in the body. We grant, however, that 3 is closer coupled and more sloping in the shoulder.

In our bottom pair, we easily placed 3 over 2 on depth, development, sharpness and muscling. Number 3 has more style and character, is cleaner in the neck, sharper at the withers and deeper in the body. While 2 is straighter on the hind legs, he is too thick in the withers and too shallow in the body to place higher.

Mettler . . . .

(Continued from page 13)

diagnosed. Each animal must be individually identified, and the health certificate is void after 30 days.

Maine

There are no import requirements for horses moving from New York State into Maine for show purposes.

Connecticut

At the present time, Connecticut has no regulations for interstate movement of horses. Some of the shows themselves may have certain requirements.

Several bills are now pending before the General Assembly and it is expected that legislation will be enacted for interstate movement of horses before adjournment.

New Jersey

Horses destined for racetracks must meet the requirements of the New Jersey Racing Commission as follows:

All horses, including ponies, entering the grounds of any race track in New Jersey must be accompanied by a current, valid certificate of veterinary examination. A current certificate is one which has been issued within a 10-day period immediately preceding date of entry. To be considered valid the certificate must contain:

A. Adequate identification and/or description of the subject animal.

B. A declaration that said animal is free of apparent symptoms of an infectious or communicable disease.

C. A record of the horse's body temperature at the time the examination is conducted.

D. The signature of an accredited, licensed veterinarian who has conducted the examination.

Any horse accompanied by a current certificate of examination which records a body temperature reading of more than 102 degrees F. will be denied access to the grounds of the racing association.

Trotting tracks also require a negative equine infectious anemia (Coggins) test. Atlantic City racetrack requires current eastern equine encephalitis plus negative Coggins test.

Horses passing through New Jersey need only have a health certificate or whatever is needed for the state of destination.



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Dollar Guide

FOOD PRICES, especially prices of red meats, have been constantly in the headlines. Remind your non-farm friends that between 1952 and 1972: wholesale price of farm products rose 19 percent, industrial commodities rose in price by 40 percent, and average hourly earnings in manufacturing industries rose 130 percent. Prices farmers receive rise and fall; wages only go up.

Consumers, especially the boycotters, want food cheap so they can spend more of their incomes on other things. In terms of the number of hours they work to purchase this food, and in terms of percentage of after-tax income spent for food (16 percent), they never had it so good ... and the people of no other country on earth are as well off!

PENNSYLVANIA VOTERS go to polls May 15 to vote on proposed constitutional amendment that would allow farmland to be assessed on basis of present use. "Clean and Green Committee" formed to promote "yes" vote.

In New Jersey, bitter legislative fight has been waged in attempt to repeal or emasculate existing Farmland Assessment Law in that state.

POULTRY RATIONS are tempting area for cost-cutting by changing ration to cheaper components. Specialists caution that several essential amino acids must be present, and that trained nutritionist is needed to evaluate any major change.

However, cost-cutting potential exists for those poultrymen who keep flocks on initial ration of a phase feeding program (high-energy, high-protein). Adjustment will save dollars.

REDUCED MILK OUTPUT throughout 1973 is predicted for Northeast by Prof. Stewart Johnson of University of Connecticut. He predicts Class I price increase for December of 20 cents per cwt. above April price.

COMMODITY CREDIT CORPORATION bins are empty for the first time in 25 years. Millions of bushels of grain are in the pipelines of trade channels ... but Uncle Sam's CCC is out of the grain business.

MILK CONSUMPTION (all forms combined) per person in U.S. rose in 1972 over 1971 for first time in 20 years. Cheese consumption up 12 percent, low fat milk up 11 percent.

ERADICANE is first herbicide containing "safening agent" which protects corn against herbicide (Eptam) injury. Effective against nutsedge and quackgrass, the new weedkiller is expected to be approved for use in 1973 season.

PROTEIN PRICES depend heavily on success of Peruvian fishing for anchovies. Normally, that annual catch provides protein equivalent of 52 million bushels of soybeans. Because of shift in Humboldt Current off coast of Peru, fishing shut down there for 6 months last year ... helping to send soybean prices skyrocketing.

FOOD COST FOOTNOTE ... USDA reports 29 standard food items in supermarket cost $11 ... basket of 29 organic-labeled counterparts cost $20.30 in supermarket ... $21.90 in "health food" store ... $17.80 in "natural food" store.

BENLATE, a systemic fungicide, has had registration expanded to include apples and pears.

AG MARKETING AND BARGAINING LAW now in effect in Michigan. It sets up legal machinery for fruit and vegetable growers to bargain effectively with processors.

FERTILIZER shortage looms as real possibility ... especially phosphorus. Accept 10-10-10 in place of 10-20-10 ... and don't delay corn planting even if short of fertilizer. Look ahead to topdressing legumes after first cut with materials lower in phosphate and higher in potash.

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Our warranty shows our confidence. No nonsense. No loopholes. It covers everything except tires, tubes and battery—*for one year.* That means engine, transmission, electrical system—the works.

Who's Sperry New Holland? We're a division of Sperry Rand. We've been doing business since 1895, mostly with farmers. The fact is, we're the country's #1 producer of specialized farm machinery. We build machines that work hard and last long, you can be sure of it.

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PERRY NEW HOLLAND

rden tractor (or riding mower). **Why?** *Turn the page.*

had long become accustomed. Women's perfumes, their clothing, their hairdressing, and all the other costs of financing a woman were higher than the year before. It was getting so men's incomes were pinched to the point where they could no longer afford such things as extra rations of mead, fishing boats, snow chariots, and a thousand and one other components of enjoyable living.

Some said it was all the middleman's fault . . . exorbitant profits being taken by the dressmakers, hairdressers, etc. Others said it was just supply and demand . . . demand rising, and the supply limited.

There were many courses of action taken in response to the rising costs of women. The president of the College Fraternity Council, an active member of the time-honored "Fool 'Em and Forget 'Em Club," appeared on a nation-

judged primarily by their ability to fill the crying towel beyond capacity with tears about the financial woes of farmers. Some politicians have become famous (and elected or appointed) by telling farmers year after year how bad things are . . . and how Ol' Phogbound will change things on their behalf.

Folks, I've had the experience of growing up on a farm amidst what is now called poverty, and I well remember my father selling milk in the 30's for 80 cents per hundredweight. And across the years, I've had the privilege of visiting hundreds of farms from Maine to Pennsylvania. As county agent and banker, as well as editor, I've looked over dozens of farm financial statements.

Farm people legitimately feel that their effort, capital, and managerial skills aren't as

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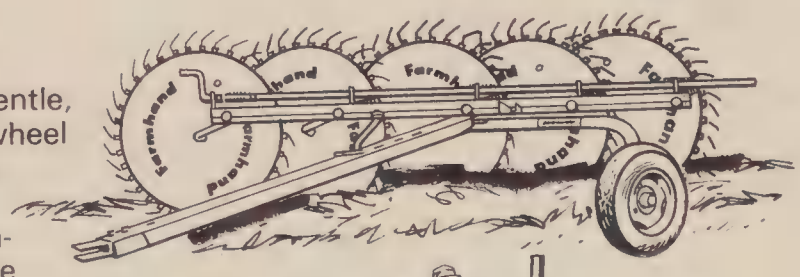
Finally, he got fed up and decided he'd fix her! So he poured some freshly-pressed apple cider into the clean specimen bottle and took it to the doctor's office. Sure enough, the nurse gave him the usual hard time . . . was he sure he got the specimen before breakfast, did he bring it down promptly, and ending by muttering that the stuff looked awfully **cloudy** to her.

The farmer took the bottle back, peered intently at it, and said, "By golly, it **is** cloudy . . . think I'll run it through again!"

Whereupon he chug-a-lugged the "specimen" . . . and the nurse fainted!

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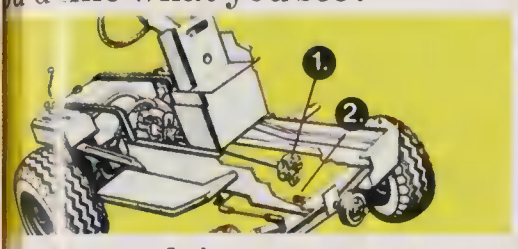
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At last! Garden tractors built for long life, quick hook-ups (without belts!) and easy riding—backed by a solid, no-nonsense warranty.

you could look inside this New Holland garden tractor, you'd like what you see:



A direct-drive power system (1) to rear wheels. No old-fashioned belts!

A power-take-off shaft (2) replaces belt connections for attachments—makes hook-up surprisingly simple.

By eliminating these belts, New Holland 12 hp., 14 hp. and 16 hp. garden tractors save you trouble from slipping belts and adjusting belts and replacing belts. You get a modern, reliable power system. And, of course, attaching the mower is easier than ever—you don't even need tools.

coupling. No more struggling to slide it underneath. The longer you own this tractor the more you'll appreciate this idea.

You'll also appreciate how easy we've made routine maintenance. The front hood and rear deck tilt up easily.

drostatic drive handle (one control for forward, reverse, stopping – without clutching) is right where your hand rests naturally. A hydraulic lever (optional on 12 hp. model) lets you raise and lower attachments effortlessly. It makes work almost a pleasure.



NEW 16 hp. model. Options include mower, snowthrower, tiller, more.



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Now look at our drive-over mower. You ride right over it to get it in position to connect the power



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SPERRY NEW HOLLAND

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PARADE

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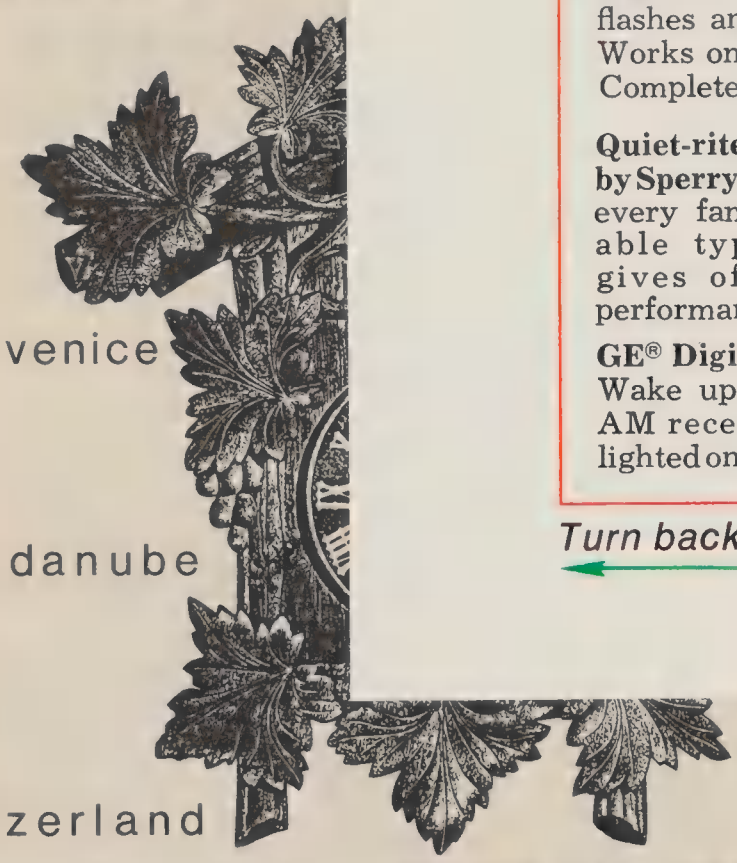
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Quiet-riter™ Typewriter by Sperry Remington. For every family! The portable typewriter that gives office-machine performance.

GE® Digital Clock Radio. Wake up to music! FM/AM reception. Brightly lighted one-inch numbers. Sleep switch to shut off radio automatically.

Crescent® Tool Set. Ideal for the auto buff! Contains 50 pieces: wrenches, screwdrivers, ¼", ⅜", ½" square drives, spinner handle and extensions, spark plug socket.



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SPERRY NEW HOLLAN

Turn back for more reasons to buy New Holland. . .

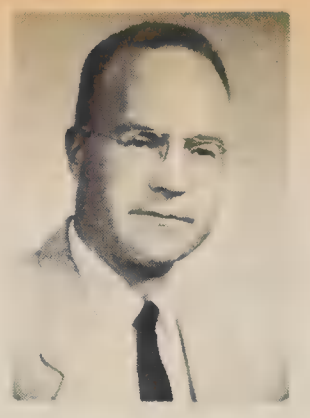
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EDITORIALS



by GORDON CONKLIN

WELCOME TO THE GRILL

The American Medical Association recently gnashed its teeth at length about an NBC television program entitled, "What Price Health?" Comments about the program appeared in the "AMA Update" (Volume 3, Number 1), entitled, "What Price Deception?"

Calling the telecast "patently dishonest," the AMA writers proceed to dissect it item by item, and provide documentation to refute a long list of falsehoods, half-truths and untrue implications broadcast as part of the program. Dr. Alex Gerber, a widely-known critic of the AMA and U.S. medical care, was moved to publicly express his disappointment about the broadcast, saying, "Had I known in advance that NBC planned a highly biased and distorted view of medical care in this country, I would never have consented to be a part of it."

Welcome, doctors, to the boob-tube grill on which farmers have also been unfairly fried! Cesar Chavez grabs the heart of TV program directors, but it's as tough as robbing Fort Knox to get the farmers' point of view about boycotts and union organizing on the air.

All too often, the creator of a TV "documentary" starts with a foregone conclusion which he believes will be generally popular, then proceeds to "prove" his case without regard to complete honesty . . . rather than accepting the responsibility of presenting both sides of a controversial issue. That's show biz, my friend.

At various times, agriculture has suffered from showings of biased programs about pesticides and seasonal labor. A notable exception to that dismal record, though, was a recent hour-long program called "The Land" by ABC, sponsored by the Ford Motor Company.

It's said that misery loves company, so I suppose farmers can't help but grin a bit to see the doctor cast by the managers of the electronic wastelands into the same "bad-image" boat where farmers have been for some time. While they're together, maybe the livestock farmers can query the doctors a bit about all that bad press some heart specialists have been giving animal fats!

THE GREAT GIRLCOTT

Once upon a time, in the far-off land of Organized States, a great hue and cry arose because the cost of women was going up sharply, threatening to require 18 percent of men's incomes rather than the 16 percent to which they had long become accustomed. Women's perfumes, their clothing, their hairdressing, and all the other costs of financing a woman were higher than the year before. It was getting so men's incomes were pinched to the point where they could no longer afford such things as extra rations of mead, fishing boats, snow chariots, and a thousand and one other components of enjoyable living.

Some said it was all the middleman's fault . . . exorbitant profits being taken by the dressmakers, hairdressers, etc. Others said it was just supply and demand . . . demand rising, and the supply limited.

There were many courses of action taken in response to the rising costs of women. The president of the College Fraternity Council, an active member of the time-honored "Fool 'Em and Forget 'Em Club," appeared on a nation-wide television program to announce a dramatic change of policy.

Before a cheering studio audience, he solemnly burned the age-yellowed charter of the Club . . . halfway, so that it now read only "Forget 'Em." Piously smiting his chest, he raised his face heavenward and solemnly proclaimed that his group would launch immediately a girlcott, and refrain from associating with girls until their costs returned to reasonable levels.

The famous court jester, Marlin Slunglo, was even more dramatic. He was scheduled one morning to marry his fifth wife, but sent to the wedding in his place a 90-year-old priest to breathlessly announce that Marlin was even then joining the girlcott by entering a monastery at Injured Ligament.

Some of the king's wisemen tried to set the whole thing in perspective, pointing out:

— As of the first of the year, the medical drug Noyenatol was removed from the market by the King's order. This drug once turned off men's interest in the ladies, but now it was no longer available.

— Under the King's program to provide free dates for the underprivileged, girlstamps were widely issued. This had also increased demand.

— It had always been possible to avoid the expense of girls . . . without a girlcott. If the cost is overly burdensome, switch to substitutes . . . fishing, poker games, yoga, cold showers, and the like.

But the emotionally-charged girlcotters would have none of it . . . they wanted girlcosts rolled back to the levels of 10 years earlier. So they petitioned their King with demands for higher wages for themselves (so they could better afford the higher girlcosts), and at the same time threatened dire deeds if those costs were not reduced forthwith. "Down with supply and demand," they shouted. "This is a new age, and we demand an end to market dependence on such nonsense."

The moral of the story is that emotion is more exciting than the facts . . and it is more popular to suspect some sinister conspiracy than it is to study a problem objectively.

POOR MOUTHING

Ever since I can remember, it's been traditional among farmers that they must always cry about the times being hard.

For several decades, gloomy testimony has been periodically presented by some northeastern milk cooperatives that the milk supply will soon dry up to nothing because of low milk prices. Farm organization leaders are sometimes judged primarily by their ability to fill the crying towel beyond capacity with tears about the financial woes of farmers. Some politicians have become famous (and elected or appointed) by telling farmers year after year how bad things are . . . and how Ol' Phogbound will change things on their behalf.

Folks, I've had the experience of growing up on a farm amidst what is now called poverty, and I well remember my father selling milk in the 30's for 80 cents per hundredweight. And across the years, I've had the privilege of visiting hundreds of farms from Maine to Pennsylvania. As county agent and banker, as well as editor, I've looked over dozens of farm financial statements.

Farm people legitimately feel that their effort, capital, and managerial skills aren't as handsomely rewarded as are comparable inputs by folks in other businesses. But the fact remains that, in general, most farmers have very respectable figures on their net worth statements.

I suppose it's fun to always plead poverty, with or without justification, but there are several very negative results:

—Young people are turned off from thinking about a career in agriculture. Why should your son go into an occupation about which you've bitched for years?

—When farmers **really are** in financial trouble, nobody listens to them. Crying "wolf" too often turns potential friends-and allies off, too!

—Managers of processing plants, and agribusiness in general, get a negative feeling when they hear nothing but the crying of the blues. The entire agricultural industry develops a defeatist attitude.

Sure, I know that real financial binds afflict some farm families at times . . . but let's not cry about our lot when the facts show otherwise. As a matter of fact, maybe crying doesn't really do us much good in any case!

PR PROGRAM

An intriguing experiment has been launched by the Ellis L. Phillips Foundation, in cooperation with the New York State College of Agriculture and Life Sciences at Cornell University.

Funds have been provided to expedite a program encouraging college students not connected with agricultural training to work and live on a farm for a summer. Thus, interested students who will eventually become doctors, lawyers, bankers, TV commentators, etc., will have an opportunity to see farms and farm families as they really are.

Hopefully, they will carry these impressions with them into future years to provide some agricultural perspective in all the areas touched by their lives and professional careers.

GUEST EDITORIAL

Of all the virtues that farmers and their rural neighbors learn from their earliest childhood years, one of the most important is the realization that if you would have more, you must produce more. Farmers know that. Congress could pass a law tomorrow guaranteeing everybody a free loaf of bread. But none of us would get that bread unless someone got up early tomorrow morning and baked 208 million loaves and distributed them. Only people who work do that. Without production, without somebody raising the crops or mining the minerals or running the factories or making the deliveries, we have nothing. — *Secretary of Agriculture Earl Butz.*

THE PASSING PARADE

A doctor friend tells me that he has a marvelously-competent nurse, but that she has become somewhat snappy and abrasive with the patients who visit the doctor's office.

Last fall, an elderly fruit farmer was having some internal plumbing problems, so he had to bring in a urine specimen every day for a week. He did this faithfully each morning, but each time he had to suffer a tongue-lashing from the nurse.

Finally, he got fed up and decided he'd fix her! So he poured some freshly-pressed apple cider into the clean specimen bottle and took it to the doctor's office. Sure enough, the nurse gave him the usual hard time . . . was he sure he got the specimen before breakfast, did he bring it down promptly, and ending by muttering that the stuff looked awfully **cloudy** to her.

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Photo: C. Hadley Smith

Chocolate Cake Contest

PRIZES

by Augusta Chapman, Home Editor

If a survey were made to find out what kind of cake is most popular with men, women, boys and girls, we bet the winner would be "Chocolate" by an overwhelming vote! We thought it was about time for this favorite dessert to be featured in our AMERICAN AGRICULTURIST-New York State Grange baking contest, so for 1973, it's a Chocolate Cake Contest!

Subordinate Grange members across the state are entering their local bake-offs, and a few Pomona contests have already been held. The exciting climax comes in October when the 53 county winners send cakes to the state finals, which will be held when State Grange Session meets at Cortland. Top winners in the finals will receive the valuable prizes pictured and described on these pages.

Most of the companies mentioned in this article have participated in our baking contests for many years. AMERICAN AGRICULTURIST and New York State Grange appreciate very much their support, and we know the success and popularity of our contest each year is due largely to the valuable prizes awarded state winners. Again, we thank each company who is donating a prize for our Chocolate Cake Contest.

And now for the prizes!

GRAND PRIZES

The top winners will receive **one** of the following grand prizes:

From **Agway, Inc.:** A cash award of $200.00.

From **GAF Corporation:** An Anscomatic 236 XF Electric Eye Model Camera, which takes flash pictures without batteries.

From **International Multifoods:** A deluxe chrome Mixmaster Mixer with 12-speed Mix-Finder dial.

From **International Salt Company:** A Regal 30-cup automatic Poly Urn.

From **Monarch Range Company** (Beaver Dam, Wisconsin): Their patented "Jet-Fan SPEED OVEN" Electric Range. The patented "Jet-Fan" in the oven causes it to bake and roast at least 25 percent faster and is an exclusive with Monarch. The oven is also Continuous Cleaning, which means it cleans itself while used at normal temperatures. Also featured are a lift-off oven door and lift-up cooking top.

From **National Grange Mutual Insurance Co.:** A 4-piece Coffee Service; includes 15-inch round tray of Community Silverplate in "Park Lane" pattern.

From **New York State Grange: Two** grand prizes — A Singer Portable Zig-Zag Sewing Machine and a Singer Powermaster Upright Cleaner with pile selector which adjusts for the new shag carpets.

From **Oneida Ltd. Silversmiths:** A 48-piece set (service for 8) of Community Silverplate in the new "Royal Lace" pattern, plus deluxe storage chest.

PRIZES TO TOP TEN WINNERS

Each of the 10 highest state winners will receive the following prizes:

From **Curtice-Burns Foods:** A case of Blue Boy vegetables in white-plate lined cans.

From **Dairylea Cooperative Inc.:** A Cheddar Treasure Chest Dairylea Cheese Assortment.

From **Hershey Foods Corporation:** A gift package containing many Hershey products.

From **International Salt Company:** 4 packages of Sterling Table Salt.

From **Ritter Sales Division:** A "Cumberland" gift box of assorted Ritter products.

OTHER AWARDS

Other contest prizes, including cash awards, are as follows:

From **International Multifoods:** A coupon for a 5-pound bag of Robin Hood flour to each of the 53 county winners.

New York State Grange will again award $159.00 in entry prizes. Each of the 53 county winners taking part in the state contest will receive a $3.00 cash award.

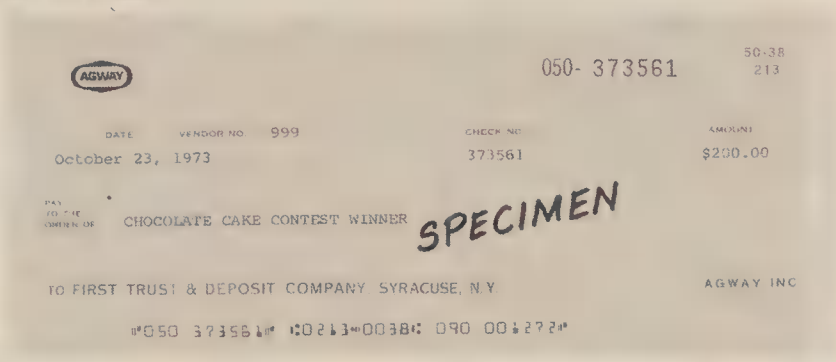
AMERICAN AGRICULTURIST will distribute $107.00 among the 25 top winners as follows: First prize, $20; second, $15; third, $11; fourth, $8; fifth, $6; sixth, $5; 7th through 10th, $3 each, and $2 each to winners 11 through 25.

Keep Watch!

We hope you'll watch future issues of AMERICAN AGRICULTURIST for more news of our Chocolate Cake Contest. In October we will print a list of Pomona winners who will be competing in the state finals, and our December issue will carry a story of the finals. There will be pictures of the prize exhibit and all winners present at State Grange Session.

GRAND PRIZES

From Agway, Inc.: $200 in Cash





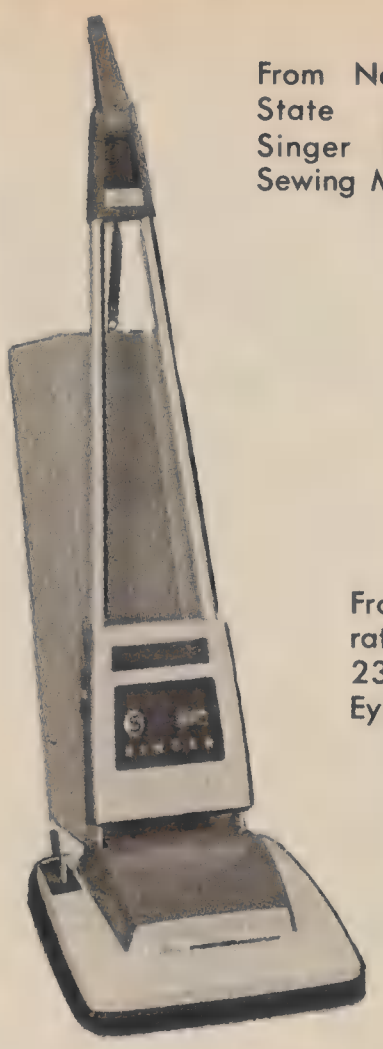
From Monarch Range Company: A patented "Jet-Fan SPEED OVEN" Electric Range



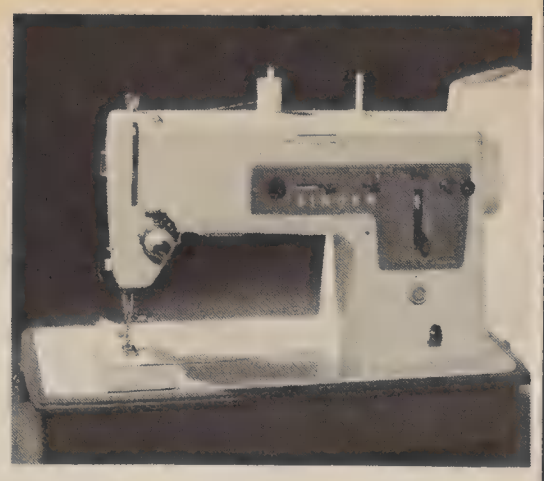
From International Salt Co.: Regal 30-cup Poly Urn



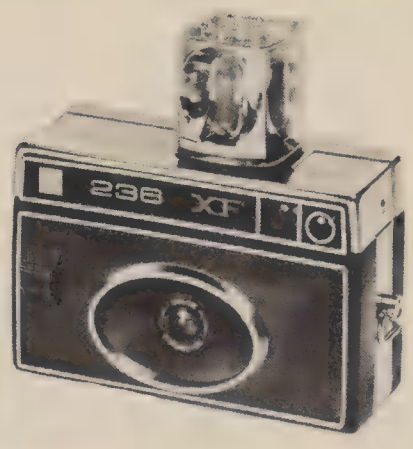
From International Multifoods: Deluxe chrome Mixmaster Mixer



From New York State Grange: Singer Portable Sewing Machine



From GAF Corporation: Anscomatic 236 XF Electric Eye Camera



From New York State Grange: Singer Powermaster Cleaner



From Oneida Ltd. Silversmiths: 48-piece set Community Silverplate and Chest



From National Grange Mutual Insurance Co.: 4-piece Community Coffee Service

PRIZES TO THE TOP TEN WINNERS



From Dairylea Cooperative Inc.: Treasure Chest Dairylea Cheese Assortment



From Ritter Division of Curtice-Burns: Gift box of assorted Ritter products

White-plate lined cans



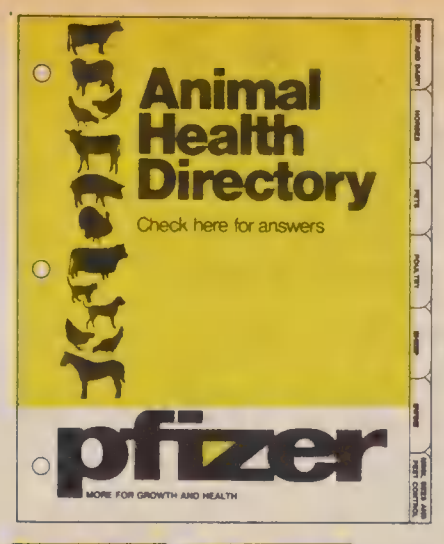
From Curtice-Burns Foods: Case of Blue Boy vegetables



From International Salt Co.: 4 packages of Sterling Table Salt



From Hershey Foods Corp.: Gift package of Hershey products.



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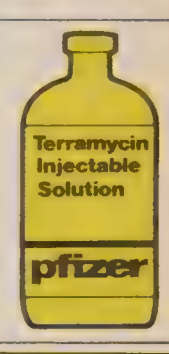
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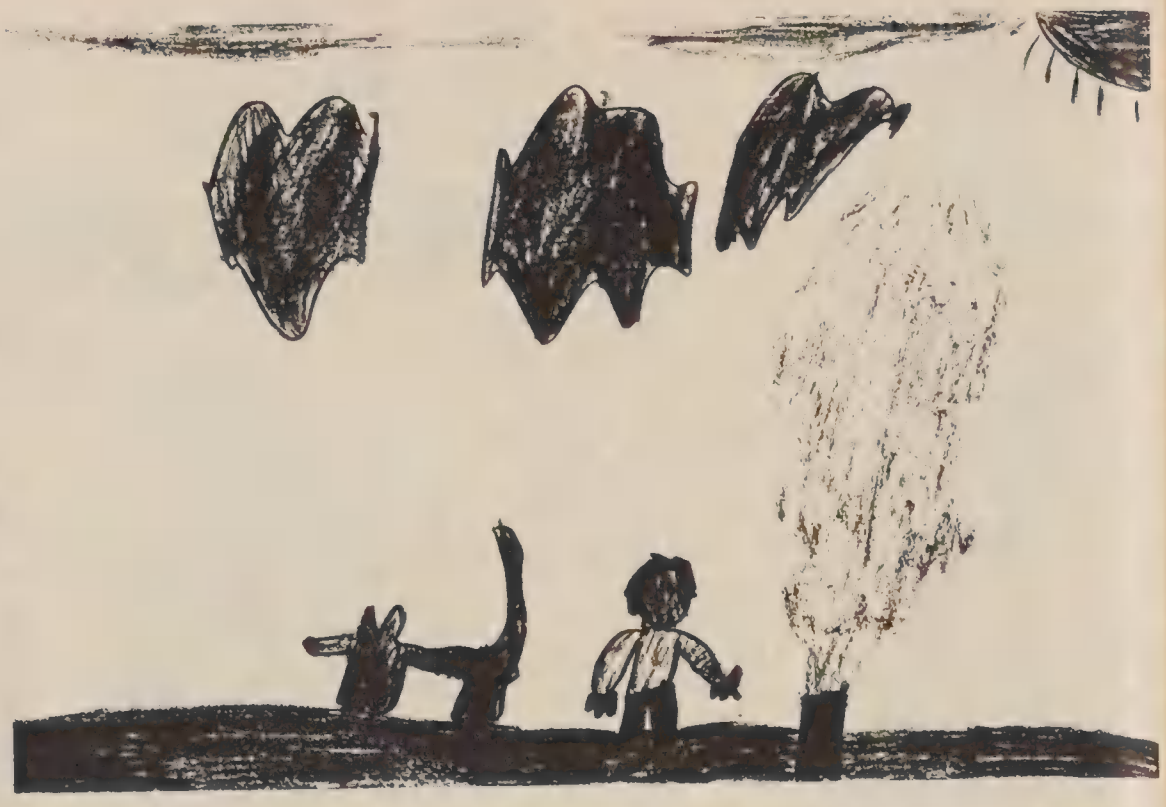
Visiting

with Home Editor Augusta Chapman

GOING BAREFOOT

by Geraldine Ross

Down rain-washed lanes, when days steam heat,
Mud caresses small bare feet,
Or dew, across a morning's green,
Washes those bare feet cool and clean.
All small fry, skin-aware of stone,
Walk proudly through a world they own,
And any country child can be
Cousin to flower, brook or tree,
Can claim as kin all outdoor things
With fur or petals, leaves or wings
By being less than twelve years old,
Kicking up dust like dry-hot gold!



We printed "Going Barefoot" in last June's issue, and it has brought many responses to Geraldine Ross and to our office. Mrs. Phyllis Sasso, a second grade teacher in William Winsor School, Greenville, Rhode Island, sent Geraldine drawings and letters from her class. Here is what Gerald Richard did. Gerald's "clouds that look hot" were colored orange.

June 7, 1972
Dear Miss Ross,
I like your poem going Barefoot. It was a steamish hot day so I put clouds that look hot.
Your friend
Gerald Richard

A New Breed

Another reader of **American Agriculturist**, Edgar M. Burr of South Salem, New York, sent in a more contemporary version of the poem —

Down rain-washed streets when days steam heat,
Goo caresses small bare feet,
Or tar across the asphalt way
Cakes tiny toenails with black clay.
All teeners, skin-aware of tacks,
Walk proudly in their threadbare slacks,
And any suburban child can be
Cousin to shoeless, homeless refugee;
Can claim as kin all outdoor things
As paper or glass, wire or strings
By being more than 12 years old —
Affluent, disdainful and can't-be-told.

To this, Geraldine replies that the barefoot she sees on the hot pavements of Minneapolis don't inspire her. She says, "I hope kids **still** go barefoot in **pleasant** rural places." And so do I.

A New Cookbook

Mrs. Hazel Corliss of Basin Farm in Vernon, Vermont, has contributed several articles to our Home Department pages since I've been with **American Agriculturist**. We've corresponded often through the years, and I feel she is my friend, although we've never met.

In 1971, after nearly fifty years of marriage, Hazel's beloved "Pop" left her. She has spent the last two winters with their son in Maryland, but returned to Basin Farm for the summer.

For twelve years, Mrs. Corliss also wrote a weekly column called "Hilltop Housewife" for the **Greenfield Recorder.** Often she gave her readers some recipe she had used for years, and in return they sent her their favorites. Now, the best of these recipes have been combined in "Hilltop Housewife Cookbook," which I'm sure you would enjoy a lot. It is available for $3.95 postpaid by sending your order to **Mrs. Hazel Corliss, P. O. Box 107, Glen Arm, Maryland 21057.**

Women's Lib . . .

A few weeks ago I spent an interesting and rather enlightening afternoon on the Cornell University Campus. I attended one session of the "Ecology of Women" Conference sponsored by the New York State College of Human Ecology (formerly the College of Home Economics). "The Women's Movement" was discussed, and speaking was Professor Catherine Stimpson of Barnard College.

Like all of you, I have been aware of the women's movement and have mentally applauded their efforts to help women get as much pay as men for doing the same work. I also agree that women are fully as capable of holding many administrative positions and political offices as are men.

What I hadn't realized was the apparent rancor behind the movement. Professor Stimpson compared it to something like "Beauty and the Beast." The beast is male chauvinism and sexism personified, and it is up to beauty (women's movement) to redeem the beast and bring him into the human race.

What was certainly more important to me, though, I hadn't realized how greatly I need to be liberated! I've never considered how I was taken-in and demeaned by assuming my husband's name when we were married and how this low estate has been perpetuated through the years by allowing my mail to come addressed "Mrs." instead of "Ms."

And how naive I've been in thinking the enjoyable division of work my husband and I have shared for more than 30 years was a good arrangement! Horrible thought — I've allowed myself to be identified with the kitchen and have probably washed a few million dishes and cooked thousands of meals!

Well, I fear women's lib has come too late to free me from my low status in life. And looking back, I feel no desire or need to be liberated. Guess I'm one of those poor unenlightened souls who doesn't know enough to be miserable even when told I should be. I even felt sorry for all of the attractive young women listening so intently and apparently hanging upon every word being spoken.

No wonder our divorce rate has climbed at such a rapid pace in the last few years, but no doubt the women's movement will take care of this ill also. When asked by one of the few male listeners if marriage is repressive, Ms. Stimpson conceded that for most people she considered it to be so.

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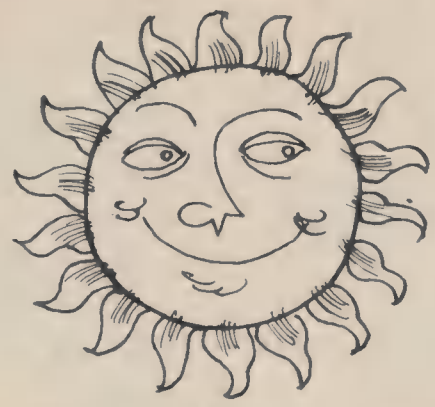
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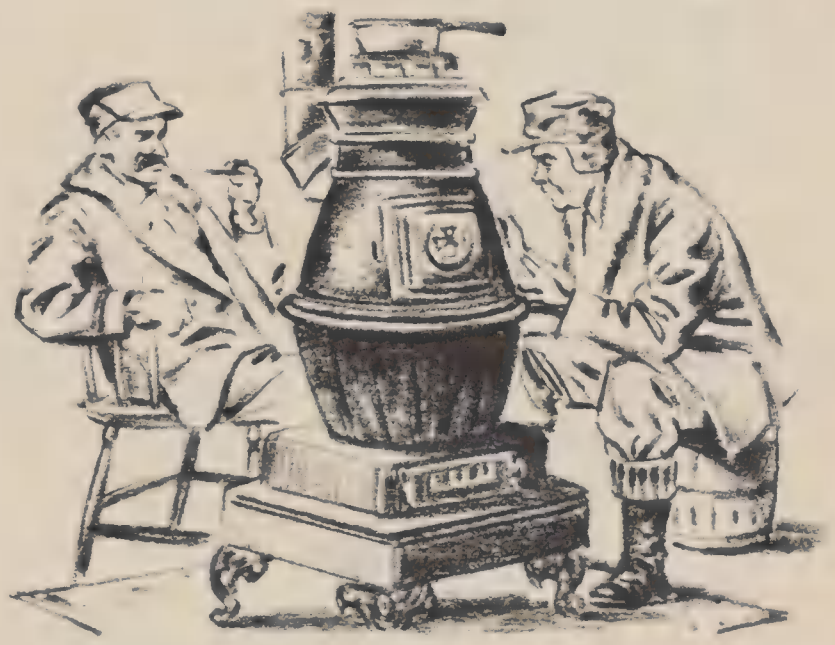
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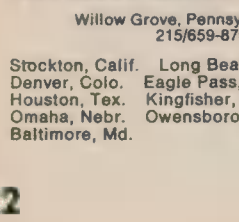
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This scene is typical of the wild beauty to be found in Norway's fjord country.

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Many people feel there's nothing quite as relaxing as a cruise vacation, and we're inclined to agree with them. If you feel this way too, you'll want to come along on at least one of the three cruises we're offering during the summer and early fall. Here are brief descriptions of these trips —

Northeast Living

Dates for our **Upper Mississippi Cruise** are **August 11-18,** and we'll sail the river from St. Paul, Minnesota, to St. Louis, Missouri, an area entirely different from any other we've covered on the **Delta Queen.** There are locks and dams on the river, with hills, ravines and palisades along the banks.

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In St. Louis we'll ride to the top of Gateway Arch for the magnificent view of the city and river; we'll tour Anheuser Busch Brewery, Grant's Farm (where Ulysses S. Grant once "tilled the soil"), Forest Park and other interesting places.

Each year we wonder if it will be the Delta Queen's last, so don't wait any longer to take a trip on this unique, legendary steamer. You'll have unforgettable memories of wonderful Steamboat Days and a delightful river vacation.

Bermuda Cruise

Our second cruise is from New York City to **Bermuda** and return aboard the beautiful new **Cunard Ambassador.** Dates for this trip are **September 1 to 8.** The Ambassador will be our hotel in Bermuda, while we go ashore to sightsee and shop.

There are all sorts of interesting things to see and do in Bermuda. You can drive around the island in a horse-drawn carriage or a tiny taxi. You'll enjoy exploring the crooked streets of 17th Century St. George, and you'll want to visit Crystal Cave, Devil's Hole, Sea Gardens and Fort St. Catherine, as well as many other historical and beautiful places.

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(Continued on page 27)

Gordon Conklin, Editor
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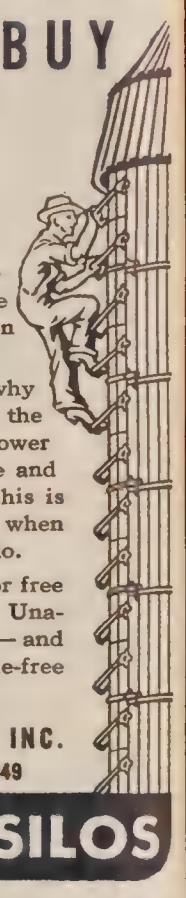
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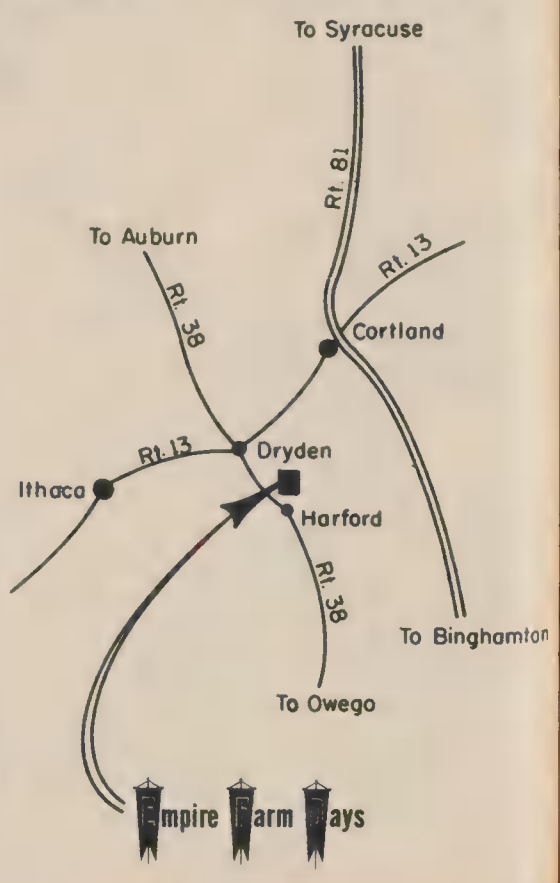
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August 7, 8, 9

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Livestock mart

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FOR SALE: Officially, attested, advanced Register Angus bulls, also, Frozen Semen from proven sires. Write today for prices and production data. Wye Plantation, Queenstown, Maryland 21658. Telephones: 301-827-7166; 827-7160.

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CHOICE AND FANCY performance tested Angus bulls. 53 years. Farmer raised and priced. Clayton Taylor, Lawtons, N.Y. 14091.

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MEADOW VIEW CHICKS for 1973. Shaver Leghorns, Harco Sex-Links, Lawton Buffs, Cornish Cross meat birds. Also started pullets. Henry M. Fryer, Greenwich, N.Y. 12834. Phone 518/692-7104.

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MAR-B CHAROLAIS RANCH featuring LCR bloodline. Registered breeding stock for sale. Mar-B Charolais, Bridgewater, N.Y. 13313. 315/822-5457 or 315/822-5935.

CHAROLAIS PUREBRED COWS, bulls and heifers for sale. Performance records show high weaning weights and grades. Robert B. Hazard, Hidden Falls Farm, Tully, N.Y. 13159. Phone 315/696-5353.

EXCELLENT CROSS/PUREBRED Polled Charolais - trucking included. Weaning weights. Olentangy breeding. M. L. Johnson, Bar-J Charolais, RD #3, Frankfort, N.Y. 13340. 315/894-8013.

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DOGS

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ATTENTION DAIRYMEN: New York & Canadian - Registered & Grade Holsteins. Why chase all over when one stop will fill your order. We have 300 to 400 cows, springers, bred heifers and open heifers at all times to choose from. Call, write or come see us. Central New York Livestock Sales, Inc., Old Route #49, River Road, Marcy, New York 13403. Phone 315/736-2972.

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200 head of registered and high grade Holstein fresh and close up first calf heifers and young cows. New arrivals weekly.

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Hundreds of satisfied customers have been buying our cattle for 35 years. We are licensed and bonded. Credit available for responsible farmers.

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PUREBRED APPALOOSA 4 years old, gentle, excellent children's horse. $300 or equal trade. Hampshire or Corriedale ewes. Sodus, N.Y. 14551. 315/483-8633.

KEEP MAY 30 open for Ontario's largest heavy horse sale of Percherons, Belgians and Clydesdales; also commercial and saddle horses and ponies; at Owen Sound Fair Grounds (165 miles north of Buffalo). For information write to C. O. Sutcliffe, Sec.-Treas., Grey Bruce Horse Breeders, Desboro, Ontario. Catalogues available after May 10th.

HORSE TRAINING

"HOW TO TRAIN HORSES" - Free book tells how to break, train, make money with horses. Beery School, 1645 Pleasant Hill, Ohio 45359.

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LIVESTOCK MARKET - for rent or lease at Bath, New York, Steuben County. Located on Route 15 one mile from either of two interchanges on Southern Tier Expressway. Barn 160 ft. by 40 ft. - new scales. James H. Burns, P.O. Box 23, Bath, N.Y. 14810.

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A WELL MATCHED PAIR of 4-year-old Durham oxen. Many ribbons showing and pulling. Dark red with stars in forehead. Price $1750.00. George H. Anderson, Route 1, Contoocook, N.H. 03229. Phone 603/746-3496.

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FOR SALE - A growthy polled yearling, son of Leader 21st. Kingston Farm, R. D. Canaseraga, N.Y. 14822. Phone 607/545-6268.

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RIDGWAY'S 50TH YEAR - Hatching Vantress White Rock Cross Broiler chicks, ducklings, goslings, turkey poults and Guineas. Guaranteed delivery. Free circular. Ridgway Hatcheries, LaRue 7, Ohio 43332.

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RAISE RABBITS SUCCESSFULLY by knowing facts. 48 page illustrated book describing 25 breeds. Housing, breeding, feeding, markets, marketing, etc. 25 cents. American Rabbit Association, 28 ARBA Building, Bloomington, Ill. 61701.

RABBITS

$500-$1,000 MONTH plan raising rabbits for us. Free details. White's Rabbitry, AG, Mt. Vernon, Ohio 43050.

SHEEP

THE THIRTIETH ANNUAL (Open) N.Y. State Sheep Improvement Project Show & Sale, Saturday, July 28 at Cornell University. For entry blanks and other information, write Colleen FitzPatrick, Wayland, N.Y. 14572 or Jeanne (Chase) Kyle, 5837 E. Henrietta, Rush, N.Y. 14543.

NATIONAL SUFFOLK SHEEP ASSOCIATION, Box 324RN, Columbia, Missouri 65201, provides breeders list, information on why Suffolks are fastest growing, most popular breed.

REGISTERED SUFFOLK RAMS for sale. Wendell Moore, Concord, R8, Loudon, N.H. 03301. Phone 603/267-2265.

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RECORDS SHOW POLLED SHORTHORN bulls superior for crossbreeding dairy type or other beef breeds. Quality semen $3.00 per ampule. Virgil Braisland, Sidney, New York 13838. Phone 607/265-3389.

TAKE A LOOK at oldest, most docile breed of Beef Cattle. Good milkers, good mothers. Thomas Patten, RD #3, Windsor, N.Y. 13865, Telephone 607/655-1304, will know where good cattle are available for your herd or Junior Breeders. New York Shorthorn Association.

WANT TO GET in the beef cattle field and make profit? If you do, remember Shorthorns —Polled Shorthorns go to market 30 to 40 days sooner than other breeds. Calves weigh 60-80 lbs. more at weaning. Get the facts. Free. Write Department EB, American Shorthorn Association, 8288 Hascall St., Omaha, Nebraska 68124.

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REGISTERED HAMPSHIRES—Certified meat tested Boars and Gilts. National championship bloodlines. Brooks End and Par Kay Farms. Reno H. Thomas, Beavertown, Pa. Phone 717-658-5821.

FOR SALE: Reg. Hampshire and Reg. Yorkshire boars, gilts, and weanling pigs. Ralph Bliek, Williamson, N.Y. 14589. Phone 315/-589-8617.

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ATTENTION FEEDER PIG Producers! It's time for another sale June 1. All feeder pig producers should take advantage of these sales. Note: If our number of pigs is less in 1973 than in 1972 this could mean no more Feeder Pig Sales. So let's try and make this a good year. All pigs must be clean and in good health. Have your pigs in by 12 noon. For further information see your committee men, or contact Tom Givan 216/632-6681.

PIGS THAT EAT and grow. Grain fed, cut, inspected, tagged, certificate. Delivered subject inspection. Truckload lots 150 to 200 overnight New England states. Pigs 25 to 30 lbs. $25.00, delivered, 50 lbs. $31.00, 75 lbs. $41.00. Mostly York Hamp Duroc crosses. Call at night to order. References every state. C. Stanley Short, Sr., Inc., Kenton, Delaware 19955.

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ANCHOR SERUM Animal Health Products by mail. Fast service on mail or phone orders. We stock the full Anchor line that is nationally known and advertised. All orders shipped postpaid. Send for your free catalogs today. Try Anchor's new Somato-Staph Mastitis Vaccine now. Franklin Bros. Farm Supply, your area Anchor Serum Co. Distributor, 1235A Cedarville Road, Easton, Pa. 18042. Phone 215-252-1333.

AUCTIONEERS

AUCTIONEERS — Livestock and farm auctions. Complete auction and pedigree service available. Harris Wilcox Inc., Bergen, N.Y. 14416. Phone 716/494-1880.

AUCTION SCHOOLS

MISSOURI AUCTION SCHOOL. Veteran Approved. Free Catalog. 1600-33 Genesee, Kansas City, Missouri 64102.

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FREE BOOK. Prophet Elijah Coming Before Christ. Megiddo Mission, Dept. 36, 481 Thurston Road, Rochester, N.Y. 14619.

BEES AND BEE SUPPLIES

PRODUCE YOUR OWN natural honey, learn how by sending $1.10 for "Starting Right With Bees", and 3 months subscription to "Gleanings In Bee Culture", Dept. I, Medina, Ohio 44256.

BEES INCREASE SEED and Fruit Yields. 144 page book with 250 pictures @ $1.00 postpaid. Explains everything about starting to selling honey. Free factory catalog, stingproof equipment. Saves you 25%. The Walter T. Kelley Co., Inc., Clarkson, Kentucky 42726.

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ATLANTIC STEEL BUILDINGS. See our ad under "Farm Buildings." We ship buildings anywhere.

CATTLE HOOF TRIMMING

WRITE TO - Robert E. Annis, Amenia, N.Y. 12501. Phone: 914/373-9078, evenings.

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CHAIN SAW CHAIN, bars, parts, sharpening equipment. Factory prices. Top quality. Free catalog. Write Zip-Penn, Box 43073-H, Middletown, Ky. 40243.

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CIDER AND WINE PRESSES. New and used. 10-gallon to 15,000-gallon capacity. Complete line of cider mill supplies and repairs for all makes. Write for catalog 72. Day Equipment Corp., 1402 E. Monroe, Goshen, Indiana 46526.

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EARTHWORMS

FREE PICTURE FOLDER, "How to Make $3,000 Yearly, Sparetime, Raising Earthworms!" Oakhaven-5, Cedar Hill, Texas 75104.

FISHING, COMPOSTING, red wigglers $6.00-1000, smaller mixed 3000-$9.00, brown nose $8.50, African crawlers $11.00, grey dancers $23.00, mealworms $2.50, 3000-$5.50 postpaid. Books $2.00. Free overcount, literature. Jerseyites add tax. Moesel Enterprises, P.O. Box 121A, Flemington, N.J. 08822.

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BESTWAY - has in stock for immediate shipment aluminum roofing to 30 ft. lengths, painted steel, technifoam ceilings, pressure treated planks, timber poles, etc. Framing lumber to 26 ft. lengths. Send us your phone number with the material list for quotation. RD3, Cortland, N.Y. 13045. 607/756-7871.

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LARGE DAIRY FARM, milking parlor, Plainfield, Conn. 1-203/393-2217, 1-203/564-7276 evenings.

COPAKE, N.Y. - Conn. Market, 400 acres of alfalfa soil. Long lease only. Reasonable. Phone 914/698-0400.

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FARMS—DAIRY, BEEF, sheep, cash crop, vineyard—all sizes. Business, cottages. J. R. Allen, Realtor, Dundee, N.Y. 607/292-3180.

FARMS - STOCKED & EQUIPPED or bare. From farmettes to a 1500 acre farm and everything in between. Example: 300 acre farm, stocked and equipped, brook, lake, 80 head, $50,000+ gross income, $247,500 - terms. Also 370 acre farm, 100 cows, good equipment, $220,000. Many others. Star Realty Co., Route 10, Walton, N.Y. 13856. 607/865-4058.

VIRGINIA LIVESTOCK, DAIRY farms, country estates and residential properties. Specific or ideal requirements needed for reply. No catalog. Browning Real Estate Agency, Box 112, Culpeper, Va. 22701.

MOHAWK VALLEY - Dairy farms in and around the Mohawk Valley. One of the largest selections of farms in this Mohawk Valley area. All sizes, all prices. When farm hunting contact John L. Subik, Realtor, 27 West Main St., Johnstown, New York 12095, or call 518/-762-4942 or 518/762-4451.

CHAMPLAIN VALLEY TOP PRODUCER - Registered Holstein farm which is consistently among the top three DHIA producers in Clinton County. 103 stanchion barn with new aluminum siding, cleaner, dumping station, mow conveyor, complete line good machinery, two silos, large machine shed. 126 registered Holsteins including 69 milkers, 25 bred heifers, 32 yearlings and calves, with a DHIA herd average close to 17,000 lbs. 14 room brick home in excellent condition, can easily house two families, 1972 three bedroom mobile home also included. 170 tillable acres of beautiful land on Lake Champlain. Cannot be duplicated at stocked and equipped price of $181,000. See it. 500 acre free stall for 116, double-six parlor, these buildings new, silo, cleaner, 165 Holsteins, 120 milkers, full machinery, two homes, excellent location, $220,-000. 400 acres, 60 stanchion excellent barn, 51 milkers, full machinery, $80,000. 355 acres, beautiful tile drained meadows, river frontage, 48 stanchions, dumping station, 60 head, two silos w/unloaders, machinery, large home, $100,000. 150 acres, river frontage, 60 head, good machinery, good barn, attractive home, excellent location, $100,000. 282 acres, excellent 78 stanchion barn, pipeline milker, heifer barns, three silos, 86 excellent Holsteins, good machinery, six bedroom home, excellent location, $145,000 complete. 180 acres, 165 tillable, 41 stanchions, cleaner, dumping station, silo, 35 milkers, young stock, full machinery, three bedroom home, $65,000 complete. Fifty-one milker operation with new steel buildings, excellent herd, stocked and equipped, excellent home, $100,000. 114 excellent tillable acres, 50 nice milkers, prime location, good barn with 57 stanchions, stocked and equipped $90,000. 210 acres, 71 stanchions, excellent buildings, 51 milkers, 13 bred heifers, good machinery, pleasant location, $110,-000. 260 acres, 87 stanchions, silo, machinery, cut 20,000 bales 1972, 86 Holsteins, large home plus mobile home, $99,000. 478 acres, 300 tillable, 66 stanchions, dumping station, silo, 88 head, good large home, full machinery, $137,000. 232 acres, five year old 44 tie barn, machinery, silo, 50 head, heifer barn, brick home, $70,000. 289 acres, 70 stanchions, two silos, good producer, full machinery, 83 head, $121,000. 398 acres, 44 stanchions, silo, modern, 44 milkers, no machinery, $71,000. 212 acres, 37 stanchions, silo, 40 milkers, machinery, $60,000. 191 acres, 45 head, good barn, nice home, good location, machinery, $77,000. Bare farms - 400 acres, over 200 tillable, 60 stanchions, brook, excellent land, good four bedroom home, has produced 3000 pounds per day, $77,000. 292 acres, over 230 tillable, good land, 53 stanchions, cleaner, dumping station, large home, $55,000. 247 acres, 197 tillable, 69 stanchions, cleaner, silo, four bedrooms, good location, producer, $88,800. Show place, 37 ties in steel covered stable, cleaner, bulk tank, all steel haybarn, steel heifer barn, river frontage, excellent location, 160 acres, good home, must see, $65,000. 192 acres, 41 stanchions, cleaner, bulk tank, good home, good producer, large tool barn, good buy at $32,000. 210 acres, 55 stanchions, heifer barn, large remodeled home, river frontage, gravel pit, good location, $60,000. 264 acres, river and brook. Very good woodlot. 49 Holsteins, excellent new machinery, new cleaner, new silo w/unloader. Excellent 3-bedroom home with all new utilities. Stocked and equipped - $77,-700. Offering Tri-County service, Brisson Real Estate, RD 2, Massena, N.Y. 13662, 315-769-9387 or 315-764-0896.

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FARMS FOR SALE: Dairy farms stocked and equipped, acreages as follows: 500 acres, 306 acres, 300 acres, 126 acres, several bare farms available. Located St. Lawrence Valley region - WJ or FL Murray-Licensed Real Estate Salesmen, PO Box 8, Potsdam, N.Y. - phone 315/265-3740 (call collect).

OUTDOORSMAN'S FARM - 225 acres, mostly woods. Secluded, creek, pond, game. $120,-000.00. Write: Box 30, Sherman, N.Y. 14781.

FARMS—FINGER LAKES AREA -- All types and size farms. Retirement homes — hunting land. Lakeshore properties. H. M. Stocking, Broker, Dundee, New York 14837.

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960 ACRES, 600 TILLABLE, beautiful wide valley. 420 stanchions, 6 silos, unloaders. Main home 12 room Early American, 2 baths. 3 tenant homes. 210 registered milkers, 133 head young stock, 7 tractors, full equipment. 45 free stalls, room for 45 more, parlor. 271 acres. Excellent 9-room farmhome, knotty pine kitchen, fireplace in living room. $86,000. Free lists, state wants. Wimple, Realtors, Sloansville, N.Y. 12160. 518/875-6355.

NEW YORK STATE FARMS - 148A Dairy. 49 large tie stalls, heifer barn. 2 silos with unloaders, mow conveyor, hay drier. Grossed over $45,000. Good 4 bedroom house, city water. $82,500. 260A, dairy barn with 68 stalls, cleaner, 18 x 55 silo with unloader. Extra good 4-bedroom house - $77,500; with 68 cows and equipment, $132,500. 390A Dairy. Barn with 80 tie stalls, plus 40 x 120 ell with 40 free stalls; 2 Harvestores and 18 x 60 concrete. 3-bedroom house, tenant house - $147,-500. Mal-Tut Real Estate, 9 Court Street, Auburn, New York 13021.

WASHINGTON COUNTY - 200 acre farm - 74 head Reg. Holsteins, farm machinery, new milking parlor. A money maker, ready to go. Asking $138,500. B. J. King, Broker; E. B. Granger, Salesman, Cambridge, N.Y. 12816.

WASHINGTON COUNTY, N.Y. - Farms for sale. Both stocked or bare. Good spring selection. If it's for sale we have it. Capital Realty, 167 Ridge St., Glens Falls, N.Y. 12801. Tel. 518/792-0976.

WESTERN NEW YORK: 512 acres, 250 tillable, 2 free stall barns for cows, heifers; 3 silos; 225 head cattle, 8 tractors; all equipment; DeLaval milking parlor; 3 good 3 bedroom houses. 245 acres, 180 tillable; free stall converted barn; 3 silos; 124 head cattle; 4 tractors; all equipment; DeLaval milking parlor; and a good modernized house. 225 acres, all Chenango gravel; 2 conventional barns; 4 silos; 130 head cattle; 3 tractors; good equipment, some new; 2 good houses; an exceptional bargain for $190,000. Terms available. We have several farms with or without stock, tools. Call me first, Lester Fuller, Broker, Riceville Rd., West Valley, N.Y. 14171. Phone 716/942-6636.

A-1 DAIRY SET-UP! Cayuga County. Syracuse minutes. 196 acres nearly all tillable! Excellent 112′ drive-thru barn with cleaner, 70′ barn for young stock, 3 silos, 2 concrete! Bulk tank, spring pond piped! 2 good dwellings, modern conveniences! $85,000 - hurry! LaRock Realty, Martville, N.Y. 13111. 315/-564-5400 or Salesman Don Holdridge 315/947-5357 for appointment only.

562 ACRES, ½ TILLABLE, 68 stanchion barn, modern equipment, silo, storage. 64 Holsteins, all stages. 5 bedroom house. Located in St. Lawrence County, N.Y. $90,000.00, complete. $70,000.00 barn and milking equipment. Owner carry real estate mortgage. Chas. J. Graham Real Estate, Liverpool, N.Y. 13088. Phone 315/457-3380.

ONCE IN A WHILE - Occasionally we list a farm we're proud to show people. This one is a dandy located in the Utica area with 400 acres of which 300 are tillable, level, high limestone, fertile acres. Barn has tie stalls for 126 cows. Farm has 16 x 50 and 20 x 60 concrete silo plus 50 x 100 bunk silo. Property has 10 room main house with fieldstone fireplace as well as tenant house. Priced at $250,-000 bare. Call Zar Benedict at 914/343-1108 or write Barmann's Realty Sales, Inc. at R.D. #4, Middletown, New York 10940.

BLUE RIBBON DAIRY FARM! Highly productive 575-acre New York farm with ½-mile frontage on both sides of river! Should carry 150 head. 240 acres tillable, 100 bottomland. 8-room modern home. 34 x 240 dairy barn, new pipeline milker, 600-gallon bulk tank, 3 silos. Other buildings. Borders highway at edge of village. Own one of the best for $145,-000, owner financing. Free . . . new 256-page Summer Catalog! Describes and pictures hundreds of farms, ranches, town and country homes, businesses coast to coast! Specify type property and location preferred. United Farm Agency, 501-AA Fifth Ave., New York, N.Y. 10017. Phone 212/687-2623.

224 ACRES, DAIRY FARM. Remodeled 6 bedroom home, barn, bulk tank and dumping station. 20 miles from Corning, N.Y. 50 acres, Cape Cod with 3 bedrooms, 2 car garage, timber, fields and brook. 7 miles from Corning, N.Y. Millard Brush, Realtor, Bath, N.Y. 14810.

SMALL FARM - A 107 acre dairy farm suitable for a 25 cow dairy herd or for recreation. Has a 10 room house in average condition. Property located ¼ mile off Route 80 in Norwich, N.Y. area. Scenic hilly land with trout stream. Has 400 gallon bulk milk tank. Priced at $39,500 with 20% down. Contact Zar Benedict at 914/343-1108 or write Barmann's Realty Sales, Inc. at R.D. #4, Middletown, New York 10940.

FARMS FOR SALE

FREE CATALOG. Our modest Four Effs catalog is mimeographed for easy reading. Its wide selection of New England and New York listings is carefully prepared to tell you what you'll see upon inspection. Descriptions are filled with a wealth of candid details seldom found in catalogs. And, a few words about special needs, price, etc., may help us help you. Four Effs, Box 264AA, Manchester, N.H. 03105. (Representatives wanted.)

FARMS! FARMS! 185 acres, 145 tillable, beautiful soil. 65 cow stanchion barn, two 50′ silos, recently new 115 cow free stall barn, three houses. Price $125,000. 240 acres, 125 tillable, level limestone soil, very good 70 cow barn, two concrete silos, 4 bedroom home. Priced at $100,000. 300 acres, 120 cow free stall, eight on side parlor, 3 Harvestores, one 30 x 60 concrete silo, two houses, other buildings. $220,000. We have two farms with 150 cow stanchion barns. Richard E. Posson, Lic. R. E. Broker, RD #3, Norwich, N.Y. 13815. 607/334-9727.

FARM FOR SALE: Jefferson County, N.Y., 4 miles from Watertown - 275 acres, 52 head, excellent machinery, Pen stable, milking parlor, modern 3 bedroom house. Poor health reason for selling. Phone 315/782-5639.

WASHINGTON COUNTY, NEW YORK, farm for sale or lease with option to buy. Will support 100 cows. 430 acres, 300 tillable. By owner. Call 1-518/747-3757.

FOR SALE: Champlain Valley dairy farm. 370 acres, 250 tillable. 120 head Guernsey cattle, 75 milkers. Fully equipped - all nearly new machinery. Local milk market. Earl Wray, Chazy, N.Y. 12921. 518/846-7315.

EASTERN NEW YORK - Dairy and beef farms for sale, all sizes, some with stock and equipment. Raw land wooded and open, lake property, small golf course. A lovely Georgian Colonial home, 450 ft. of river frontage, barn and 6 acres of land. Phone Fitzgerald Realty of Glens Falls, N.Y. 518/793-6626 or Louis Briere, Salesman, Hudson Falls, N.Y. 518/793-8231.

415 ACRE FARM in Fulton and Montgomery Counties. New 108 free stall barn, milking parlor, bunk feeders, 4-room home, about 5300 ft. frontage on State and County roads. Good terms. Write: Sacandaga Realty Co., R.D. #4, Amsterdam, N.Y. 12010.

NEW YORK STATE - free stall stable, double 6 parlor, Holstein cattle. Full line good machinery. Excellent housing. Financing arranged. Graham Real Estate, Liverpool, N.Y. 13088. Phone 315/457-3380.

FARMS WANTED

BUYERS WAITING! For good dairy farms within 250 miles of New York City. Bare or stocked. We can finance. Also, interested in recreation land, timber or development land. Make your offer now! Our company also buys direct. Barmann's Realty Sales, Inc., R. D. #4, Middletown, New York. Phone 914-343-1108.

WANTED ALL KINDS OF FARMS, vacant land and timber lots. New York and Pennsylvania locations. W. W. Werts, Real Estate, Johnson City, New York 13790.

QUALIFIED BUYERS WAITING - dairy farms, others. Wimple, Realtors, Sloansville, N.Y. 12160. 518/875-6355.

WANTED: FARMS, ACREAGE in New England. Top price paid. Send details, price: H. Brower, 20 Wachusett Road, Chestnut Hill, Mass. 02167. Phone 617/969-3461.

WANTED: DAIRY FARMS bare or stocked. Qualified buyers waiting. Paul Bouman, Salesman. Phone 914/895-2817 or Sheldon Ocko Associates, Inc. Phone 914/374-5611. P.O. Box 178, Route 17 M, New Hampton, New York 10958.

WANTED - FARM with 100 acres, more or less. Must have fairly good buildings. Please send resume and price in letter to: George Boersma, Glenwood, New Jersey 07418.

WE NEED ALL type farms. We specialize in farm sales and have waiting buyers! Call Richard E. Posson Real Estate, RD #3, Norwich, N.Y. 13815. 607/334-9727.

WE HAVE ANXIOUS buyers for good dairy farms or farm suitable to raise horses in Montgomery, Fulton or Saratoga counties. For trained farm sellers write Sacandaga Realty Co., R.D. #4, Amsterdam, N.Y. 12010.

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PROFESSIONAL A.I. TECHNICIAN—Eastern is looking for qualified men who want a challenging agricultural career providing an important and needed service to dairymen in the Northeast. The job offers working out-of-doors with farm people, above average income, liberal benefits, and transportation. Write or call: Eastern A.I. Coop., Inc., Box 518, Ithaca, New York 14850. Phone (607) 272-3660.

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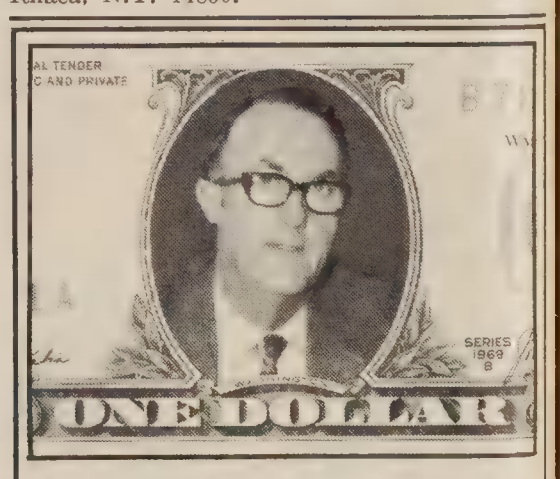
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TRUCK EQUIPMENT — Mid-equipment — truck bodies — hoists and snow plows. Grove roll back machinery beds. Dealerships available. Send inquiries to F. P. Riester, Distributor. Sand Beach Rd., Auburn, N.Y. 13021. Phone area code (315) 253-5732.

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USED 10 KW ONAN stand-by generator, gasoline powered. Transfer switches available. A. J. Chamberlain, Hinsdale, N.Y. 14743.

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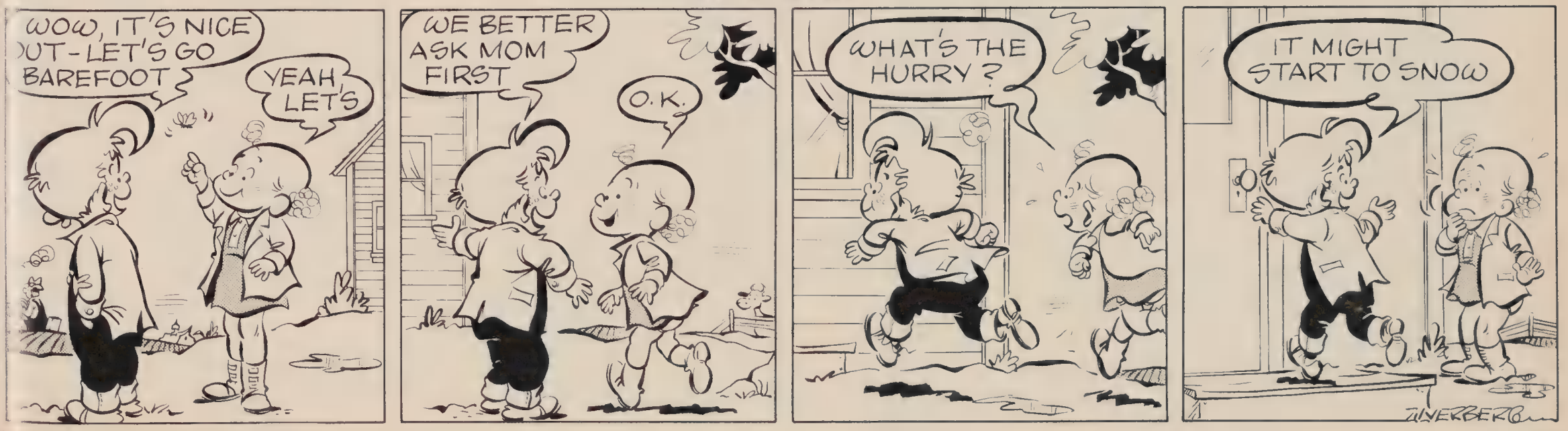
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STRAWBERRY PLANTS: Catskill, Howard 17, Sparkle, Surecrop, Earlidawn and Robinson. 100-$5.50; 200-$10.00; 500-$16.50. Victoria Rhubarb, 3 roots-$2.00. Horseradish 12 for $1.50. Postpaid. Fred Drew, Agawam, Mass. 01001.

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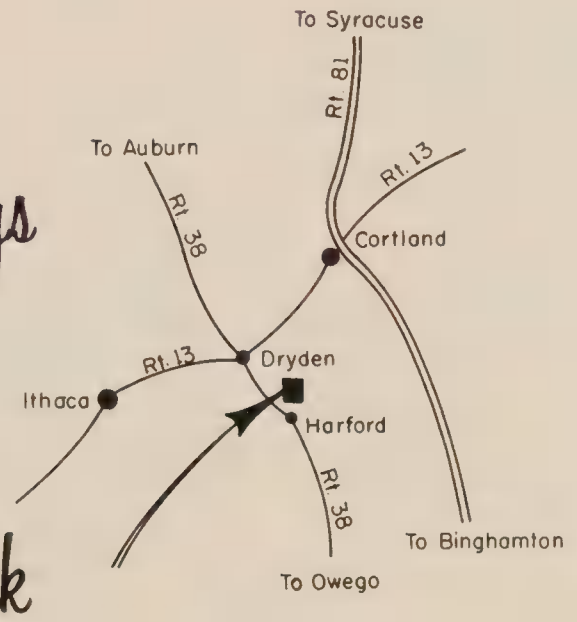
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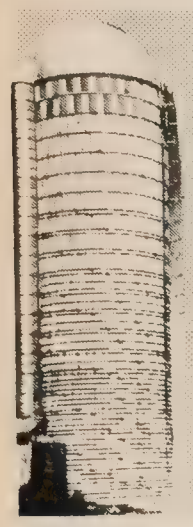
Empire Farm Days

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Dryden, New York



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Kathryn Brown is the first female county agricultural agent.

Ms. county agent

For many decades, Extension Service employees have included women, but not as county agricultural agents. In 4-H and home economics work, women have long had a professional role . . . and the day has now arrived when a woman is involved with advising farmers about technical agriculture.

Kathryn Brown became the first female carrying the official title "Cooperative Extension agent — agriculture" on January 4, 1973 in New York State's Allegany County, headquartered at Belmont. Her primary responsibilities are in the dairy and farm management programs, as well as editorship of the "Farm and Home News."

Background

Kathy grew up on a dairy farm near East Aurora, where her father has been herdsman for many years. At one time, this farm was known as Noel Farms, and now is called the Pine Grove Farms. Under both names, the herd has been well known for its purebred Holstein-Friesian cattle.

This background helps Kathy in her present association with the Allegany County DHIC, the 4-H Dairy Advisory Committee, the Allegany-Steuben Holstein Club, and the New York State Holstein-Friesian Association. She has owned and shown cattle from an early age, and was a member of the dairy cattle judging team at the Agriculture and Technical College at Alfred, as well as Ohio State University. She's a graduate (1971) of the College of Agriculture and Life Sciences at Cornell University. At all three of the colleges she attended, her training was heavily toward animal science and journalism.

Likes Work

She comments, "I enjoy meeting people, and not sitting behind a desk all the time. It's stimulating to be able to use the information accumulated from college, a farm background, 4-H experience, and regular in-service training. So far, I've had no problem of acceptance by farm families.

"I expect equal pay and equal opportunity," Kathy comments, "but I'm not really committed to 'women's lib' beyond that. Frankly, I'd prefer to avoid involvement in that controversy."

She gives high praise to Charles Hebblethwaite, who has been county agricultural agent at Belmont for more years than he'd care to admit. Speaking of years, a quick question to Kathy revealed a traditional characteristic of the feminine personality. When asked her age, she hesitated and finally said carefully, "Just say I'm in my 20's!"

And so another heretofore masculine preserve is breached by a lovely gal determined to do the best job of which she is capable. As an ex-county agent, I found myself pondering that I was born 20 years too soon . . . having had no alternative than to gaze at all those homely men during the Extension training sessions for county agricultural agents I attended! — *G.L.C.*

Building handbooks

A book to help people plan or select adequate, well-designed housing is "Family Housing Handbook" (MWPS-16), written by a team of housing specialists from 13 major land-grant colleges. The handbook discusses how to tell the good floor plans from the not-so-good. There are sections devoted to individual rooms, including entryway, garage, basement and storage. There's also a section on remodeling.

Copies of MWPS-16, at $2 each, are available from: Agricultural Engineering Department, Riley-Robb Hall, Cornell University, Ithaca, New York 14850.

Also available from the same address at $2 per copy is MWPS-15, entitled "Horse Handbook — Housing and Equipment."

Other valuable books (but from a different address) are:

MWPS-12 "Outdoor Living Planning and Construction Guide," at $1 per copy.

MWPS-14 "Private Water Systems," at $1 per copy.

These two books can be obtained from: Mailing Room, Building 7, Research Park, Cornell University, Ithaca, New York 14850.

All four publications are available to residents of any state. Just be sure to send your order and payment to the correct address.

Cruising . . . . .

(Continued from page 22)

gen, where we board a coastal express ship to begin our voyage northward along a coast so beautiful it almost defies imagination! The landscape is ever changing — mountains come right down to the water's edge, blue fjords cut their way into the hills, and rocky, wooded islands appear and disappear like strange ships. We'll see majestic glaciers, towering waterfalls and picturesque villages dotting the hills.

Between Bergen and Honningsvaag, we stop at approximately 20 coastal ports; we go ashore at Molde with its vistas of snow-capped mountains, at Trondheim to see the marvelous Nidaros Cathedral, and at North Cape where we may visit a Lapplander encampment.

Leaving Honningsvaag, we veer away from the coast, straight toward the North Pole and Spitzbergen, a cluster of strange islands far north of the Arctic Circle. For three days we sail in and around these islands, which remain almost undisturbed by road or man, as they have for centuries.

Great fjords leap up into an interior where one mountain rises behind the other; gigantic glaciers roll their majestic way down into the valleys. Truly, Spitzbergen is the highlight of this Norwegian voyage!

One of the nicest features of the voyage is the atmosphere aboard ship. It's relaxed, friendly and informal. Dress for dinner? Not a bit of it! Yet the food is excellent and the cabins comfortable. Remember this is not a cruise ship, but one that carries cargo, mail and passengers to Norway's many coastal towns.

We sail back to Bergen, Norway's second-largest city and a port of much salty beauty. After seeing all the points of interest there, we go by train to Voss and then by motorcoach to Stalheim for an overnight stay at the beautifully situated Stalheim Hotel.

A short bus ride takes us to Gudvangen, and here we begin another scenic boat ride on the fjords to Flam. We take the fantastic Flam Railway to Myrdal and then the main line train to Oslo. Sightseeing in Oslo will include the Kon-Tiki raft and Viking ships that sailed the seas a thousand years ago, the Bygdo Open-Air Museum, City Hall, Vigeland Sculpture Park and much more.

It's impossible to adequately describe this trip. We just hope you'll come with us and experience all the thrills for yourself. Send for the folder today.

Other Trips

Don't forget our **Virginia, Great Smokies and Carolinas Tour** from June 23 to July 9, our **Alaska Cruise-Canadian Rockies Holiday** from June 17 to July 6, nor the popular **Heart o' the West Holiday** from July 28 to August 18. There is still space available for all these vacations.

HOMETOWN

FIRST CLASS MAIL

GRANGE PROBLEM

You say higher dues to hire a professional staff is what will save the dwindling Grange membership!

If you'd like **one** reason for no interest in the Grange, among other such organizations, just look at the tour articles you publish in your paper!

Yes, that's right! The young, who are the "moving force" of any organization, would rather save and plan on **getting away.** Many own campers and belong to clubs that go to state parks to meet their friends, even for a weekend. For longer vacations they go to Maine, or Yellowstone, or Great Smokies, etc.

We have several farmer friends in Pennsylvania who fly to New York City to attend plays or visit museums. These are not terribly wealthy people, but dairymen who milk 50 to 75 cows, and who treat themselves once a month to a special trip away from cows and country.

My aunt and my husband's relatives were great Grangers. Never missed a meeting, and never went farther from home than the Trenton State Fair! The young generation all have campers, and have been everywhere, so the Granges here, too, are dying or dead.

It's a whole new ballgame! — *Leone L. Wilson, Jackson, New Jersey.*

ED EASTMAN BOOK

We moved the AMERICAN AGRICULTURIST offices recently, and in the process found 14 copies of one of Ed Eastman's out-of-print books, entitled, "Not With Dreams." It's fast-moving fiction about the men and women who pioneered America at the time of the Revolutionary War. Each book is autographed, "Kind regards of Ed."

For $4.00 each . . . which includes postage, handling, and sales tax . . . we'll send a copy to the first 14 people who order it.

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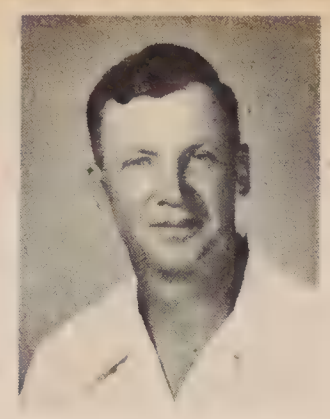
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Empire Farm Days

August 7, 8, 9

Dryden, New York



Farm Notes

by HAROLD HAWLEY

WHERE WILL IT END?

An hour's drive in any direction will take you by, into, or past a piece of good land now growing a crop of houses, a factory, supermarket, shopping center, or road. These things we obviously need. What boggles the mind is the immensity of the switch-over annually around our cities and even in the country.

I've not yet reached the point where every new house looks like a threat to our ability to produce enough food. However, we had better replace all the ways to regulate where and how this transition occurs and protect our better land areas from it. There are enough other obvious results of the switch in land use to occupy the attention of a great many people for a long time.

Water Supply

The task of supplying enough water to these developments is monumental, and may become the limiting factor in some localities. There are also the problems of sewage disposal, roads and other public services of all kinds, as well as recreational facilities.

Perhaps one of the last items to be considered, but surely of major importance after enough development has occurred, is the need for open space. Even our cliff-dwelling friends and their urban neighbors feel the need for some contact with "natural intervals." However, the distance, time, expense and frustration involved is prohibitive to getting out into the country from many of our large metropolitan and suburban areas. Belated recognition of this detail leads to appeals to preserve green belts.

This is no easy thing to accomplish. Few really want to farm in situations so restrictive that aerial or even ground-spraying or dusting is impossible, or where almost all other farming operations are subject to regulation and inspection. It gets to be an expensive matter to operate in limited areas where specialized farm services cannot afford to continue because they need more volume to be profitable. The one offset to these costs is the possibility of a built-in local market if you produce something you can market at your door.

Switch

In an attempt to offset their rising costs (particularly from higher taxes, labor and land prices), many producers switch to crops requiring less labor and which can be sold at home. Obviously not everyone can do this, but it does prolong the days that many families can stay on a piece of high-value, high-tax real estate. The end result will be the same. Few new farmers can or will enter a situation where the odds are so against a continuation of farm operations.

Examples of the extremes of this kind of situation can be seen on Long Island. Many good growers are currently making less than great returns because of their labor and tax situations. If they hang on, the appreciation of their estate holdings will reward them well, but to hold on requires some skillful adjustments. Intensifying land use to a degree almost unbelievable to an upstate dairyman is one answer.

Alternatives

After the possibilities for intensification and special markets are exhausted, the inevitable begins to happen. A long, hard look is taken at the alternatives. These, of course, include selling out and reinvesting in less costly land farther removed from the urban scene.

This has been going on for some time, but only in recent years has there been enough of this migration to have much impact on land prices in the more rural sections of the state. It has become commonplace to hear someone comment that he couldn't compete for a farm with someone who had recently sold out at non-farm prices in some urban area. All one can suggest is that there will be more of this kind of competition upstate, and that it will merely accelerate the upward trend of land prices and production costs.

Equally true, we believe, is that in spite of the formation of agricultural districts there will continue to be a loss of good farmland to other uses around our urban areas. Protection from some of the more lethal encroachments (taxes, water and sewer district charges, etc.) may prolong a farmer's tenure on his land but sooner or later, when the land becomes valuable enough, it will be sold . . . and not for agriculture.

TO TAKE OR NOT TO TAKE

Various salutes have been given to the bounce and vigor of communities and individuals who have pulled themselves up from the knockdown punch of floods last spring. In most cases, we echo these tributes. However, in some floodplains, where to one degree or another this disaster will be repeated, we just naturally wonder about the wisdom of pouring money and effort back into homes and other buildings. There seems to be an increasing regard for the flood potential in some of these situations, so hopefully resources can be directed away from the worst of the danger spots.

In some states, floodplains are being subjected to a new scrutiny as a result of the zealous pursuit for absolute purity in our waterways. No spraying may be done within prescribed distances from a stream if there is a threat of potential flooding. Inability to control weeds or insects in such a situation pretty much rules out the usual continuous corn program. Some ordinances now require seeding such strips. Somehow we get the feeling this is a serious invasion of the right of a private property without due process. More is to come.

We hear that in Connecticut it becomes necessary to find a pretty special kind of buyer for such property. Normally, the best non-farm use for land is for residences. Many non-farm rural people want a place to keep a horse or horses. No go, say the rules for these floodplains. In some circumstances, even building a home will be verboten.

We might argue about the absurdity of ruling all horses or cattle from such a situation unless, of course, we've reached the point where we are also going to keep all deer, rabbits, birds, etc., from the area. The pressure for environmental improvement being what it is, it's possible that some government agency will decide that a fence should be built on each side of all the little rivulets that go through pastures.

So you own a strip of this fine bottomland, which you can't farm in a normal, profitable fashion and can't sell for its next most logical use. So what do you do? Frankly, you cry a great deal. Land on which you are heavily taxed and can't farm profitably, and which would normally sell at pretty fancy figures, suddenly has rather limited uses and reduced value.

If it is the decision of the people that these shall be the ground rules, it should also be the decision of the people, or the responsibility of the courts, to compensate the landowners for losses brought about by these laws and ordinances. Failure to recognize the public's responsibility for such invasion of the rights of private property holders poses a threat not only to every farmer but to every holder of private property.

NO-TILL GARDEN

The auction notices all read, "Having decided to discontinue farming will sell my machinery, etc." So, having sold our machinery, we are reduced to rather primitive methods of tilling our remaining land . . . the lawn and garden!

At any rate, we are building on the edge of a field where we have grown corn for a number of years. For the moment, our concerns are not so much a great and prosperous garden. Getting an area seeded for horse pasture and lawn, and growing a little fresh food, will be about the program for this year. Until we figure out what we really want in the way of horsepower we propose to try something for our garden.

Assuming we don't have an atrazine residue, we can loosen up a little strip where the rows will be and let that do for seed-bed preparation. Hopefully, plastic will take care of most of our weed problem.

By another year, we may be emulating most of the homeowners we know by having more horsepower per acre than we ever had when we were farming full scale.

READER SERVICE



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Mrs. Carl Grund Jr., Narrowsburg $20.20
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Mr. Emmett Young, Lowville 24.13
(account cleared)
Mrs. Carman Gugliotta Jr., Syracuse .. 30.90
(refund on order)
Mrs. Stanley Clifford, Castorland 8.07
(refund on merchandise)
Mr. Walter B. Jackson, New Bremen .. 5.50
(refund on subscription)
Mr. Nelson Wilfert, Jeffersonville 9.30
(refund on shoes)
Mrs. Robert F. Smith, Cherry Creek 14.24
(refund on order)
Mr. Jim Cassidy, Corfu 199.00
(payment for lost shipment)

PENNSYLVANIA

Mr. Jesse D. Rude, Pleasant Mountain .. 60.42
(insurance settlement)
Mrs. Elan Summers, Susquehanna 10.00
(account adjusted)

MARYLAND

Mrs. Louise E. Greenwood,
New Windsor 16.32
(refund on photo order)

MAINE

Mrs. Clayton Bane, Bethel 1.45
(refund on book order)

NEW HAMPSHIRE

Mr. John Dudar, Peterboro 41.68
(refund on books)

MASSACHUSETTS

Mr. Walter J. Lowry, Canton ——— 21.50
(refund on order)

ALABAMA

Mrs. Arthur Bamberry, Heflin 8.99
(refund on order)

BRIDES' CHOICE INC.

The daughters of two subscribers found themselves without wedding programs because of unfilled orders placed with Brides' Choice Inc., 4575 Pearl Road, Cleveland, Ohio.

When requests for refunds were ignored, the subscribers came to READER SERVICE for help. When our letters brought no response, we checked on the reliability of the firm.

We were told that Gregory Schuster, owner of Brides' Choice Inc., was indicted by the Federal Grand Jury in May, 1972, on 31 counts of mail fraud.

On March 15, 1973, following a seven-day trial in Federal Court, Cleveland, Ohio, Mr. Schuster was acquitted of the charges against him. However, our readers still have not received refunds due in the amount of $54.85. We will continue to work on these claims.

WATERPROOFING

A few months ago, a subscriber reported dissatisfaction with a basement waterproofing job performed by Basement Waterproofing, Inc. The form he signed included a guarantee by "Perm-Seal." Although telephone numbers were listed for various locations in New York State, no addresses were printed on the form.

We investigated with the aid of Chambers of Commerce and the Better Business Bureau. Apparently this outfit operated under several names, including: Seal-It, Inc.; Basement Waterproofing, Inc.; and Perm-Seal Basement Waterproofing. From what we were able to learn, they evidently established a local office while working a particular area, and then closed it and moved along to another location.

The Office of the State Attorney General conducted an investigation, culminating in a permanent injunction dated January 22. This barred Seal-It, Inc., and the individual officers from engaging further in the basement waterproofing business in New York State.

From testimony heard in Albany County Supreme Court, it would appear that assets are not available to make restitution to individual complainants.

A NEW ONE

The Council of Better Business Bureaus reported in December on a new trend in fast-buck schemes.

Recently-bereaved families had been receiving "official" letters from an outfit calling itself "Office of Cemetery Services." The letter informed them that an additional inscription would be required on the family monument, costing around $55.00.

The letter's appearance was misleading as it purported to be from either an agency of the state government, a representative of a local cemetery, or a funeral director. According to the Council, the bogus "agency" even fleeced some families who did not own plots or monuments.

On March 16, Attorney General Louis J. Lefkowitz of New York State announced that he had obtained an injunction against Paul Saracino, doing business under the name of Office of Cemetery Services, 470 Belleville Turnpike, North Arlington, New Jersey.

The injunction barred the New Jersey monument maker and cemetery gardener from using misleading tactics or the words "Office of Cemetery Services" in the solicitation of business in New York State.
State.

MAIL ORDERS

When mailing a coupon from an advertisement, be sure to make a record of the name and address of the company in case it does not appear elsewhere in the ad.

Keep a record of exactly what you order, including catalog numbers when available, prices, etc. If you receive a partial shipment, keep all shipping papers.

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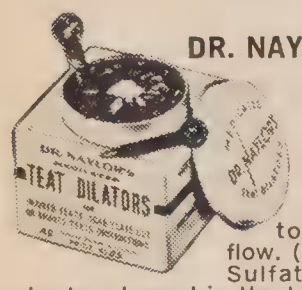
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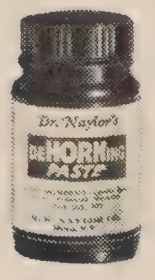
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May 9-20 - Apple Blossom Festival, Williamson, N.Y.

May 11 - New York State Holstein Show, Syracuse, N.Y.

May 14-20 - Annual Dogwood Festival, Dansville, N.Y.

May 18 - Eastern Artificial Insemination Cooperative Spring Tour (FFA), Ithaca, N.Y.

May 20 - Annual Buck and Kid Show, sponsored by NYS Dairy Goat Breeders Association, Fairgrounds, Altamont, N.Y. Judging starts 9 a.m.

June 2 - 17th Annual Steuben County Dairy Festival, Bath, N.Y.

June 2 - Pageant of Bands, Gorham, N.Y.

June 5-6 - Annual Meeting Eastern Milk Producers Cooperative, Hotel Syracuse, Syracuse, N.Y.

June 5-9 - June Dairy Festival, Boston Commons, Boston, Mass.

June 8-9 - Annual Meeting Eastern Seaboard Sheep Council, Staunton, Va.

June 10-13 - NEPPCO Egg Quality School, Quality Inn, Towson, Md. (Exit 26 of Baltimore Beltway)

June 15-16 - Colonial Invitational (sponsored by Colonial Charolais Association), Johnnycake Ranches, Burlington, Conn.

June 15-17 - 26th Annual Delmarva Chicken Festival and Chicken Cooking Contest, Civic Center, Salisbury, Md.

June 16 - Opening of Northern New York Agricultural Historical Museum, Rt. 180, Stone Mills, N.Y.

June 23 - World Livestock Auctioneer Championship Competition, Norfolk Livestock Market, Norfolk, Neb.

June 24-27 - Annual Meeting International Apple Institute, Park Place Motor Inn, Traverse City, Mich.

June 24-27 - American Farm Bureau Federation Information Conference, Rochester, N.Y.

June 29-July 1 - 6th Annual National Shorthorn Youth Conference, Oklahoma City, Okla.

July 12-13 - Summer Meeting Empire State Soil Fertility Association, Airway Leisureland Inn, Hamburg, N.Y.

July 15 - New York Ayrshire Club Annual Field Day, Marshall Cheeseman Farm, Ellenburg Depot, N.Y.

July 16-17 - Eastern Regional Junior Angus Heifer Show and Judging Contest, Fairgrounds, Harrisonburg, Va.

July 27-29 - Annual Reunion, Pioneer Gas Engine Association, Fairville, N.Y.

July 30-31 - NYS Maple Tour, Chenango County, N.Y.

Aug. 3-4 - Northern New York Agricultural Historical Society Craft Fair, at Museum on Rt. 180, Stone Mills, N.Y.

Aug. 7-9 - Empire Farm Days, Cornell Research Farm, near Dryden, N.Y.

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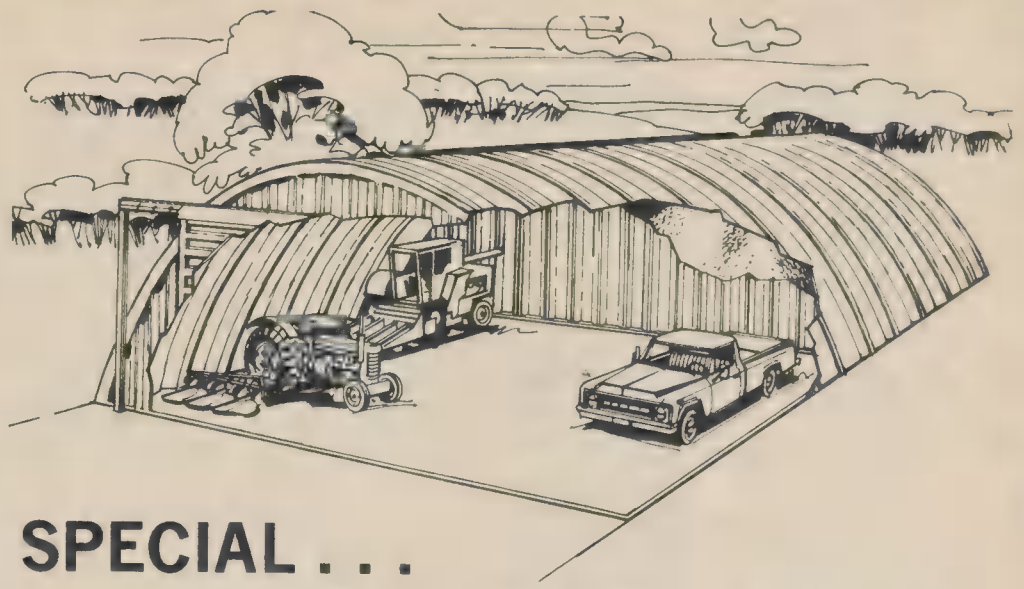
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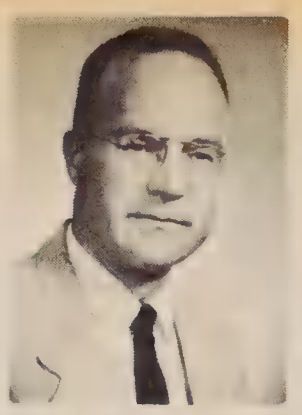
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EDITORIALS



by GORDON CONKLIN

I'M FOR IT

Recent scandal at the White House has reinforced the plaintive cries of those who claim that, "The United States is morally bankrupt."

But I thank God every day that I live in a country where powerful leadership can be challenged by opposition without the certainty of facing a firing squad. My experience with people tells me that occasional unethical behavior accompanies all leadership to one degree or another . . . and can you imagine any Russian publicly pointing an accusing finger at the Kremlin?

It is my privilege to converse from time to time with people who are refugees from various totalitarian regimes over the world . . . they are unanimous in observing that Americans generally are blissfully ignorant of what real repression is like.

Flag Day is June 14, and I'll join thousands of folks up and down the highways and byways of the Northeast in flying Old Glory proudly on that day. As I've said before, I'm **for** my country, right **and** wrong.

SWEET PIGEON GUANO

Over the years, a lot of folks have commented to me about the sugar beet business in the Northeast . . . and most of them were very uncomplimentary about the present owner of the two beet-processing plants, Fred Vahlsing. One thing that **can** be said for him, though, is that he's consistent!

After a lengthy court battle in Maine, Vahlsing finally paid his school taxes on the plant and loading facilities near Easton. Now he's $602,195 in arrears on school and county taxes at the plant near Montezuma, New York . . . and Cayuga County has moved to sell the plant to collect. No taxes have been paid on the defunct refinery since 1970 . . . and area growers claim they have not been fully paid for beets grown in prior years.

The county will probably win the battle but lose the war. There are mechanic's liens on the New York property to the tune of $1.7 million! Charges have been made that the plant is being stripped of its equipment.

Anyone want a long-term fertilizer investment? My bet is that the two plants will become the most costly pigeon-roosts in the world . . . but maybe someone can go into the pigeon-guano business someday.

READER SERVICE

Recently, we've been getting some letters asking, "What happened to your Service Bureau column?" Now and again we even get a letter from folks who remember the Rural New Yorker's "Publisher's Desk" column . . . and ask what became of it.

Well, we publish the same material . . . and provide the same service . . . as formerly included under those titles. Now, though, we call it "Reader Service" because we think the name is more descriptive and understandable.

We think that AMERICAN AGRICULTURIST provides a variety of service to readers, but the "Reader Service" section deals with several specific categories. Briefly, they go like this:

— We try to iron out difficulties and misunderstandings between our subscribers and commercial concerns and, when we feel a complaint is justified, we try to arrange a satisfactory adjustment or settlement.

— Whenever possible, we supply information on commercial concerns. We will tell you if we have had complaints against them.

— We find answers to many questions such as where to write for certain information or whom to contact about specific problems. We also answer questions concerning posting and fencing laws.

— We pay rewards of $25 to the person who gives information leading to the arrest, conviction, and imprisonment for at least 30 days of anyone who defrauds, steals from or commits arson against a subscriber who has a Protective Service sign posted, except that rewards will not be paid for theft from commercial firms . . . only farms.

We cannot:

Answer legal questions or give any help in legal matters, nor can we handle a complaint that is already in a lawyer's hands.

Handle any complaint that is over 6 months old.

Collect accounts for commercial concerns or settle disputes or claims between individuals.

Send your inquiries to: Reader Service, AMERICAN AGRICULTURIST *and Rural New Yorker,* Box 370, Ithaca, New York 14850.

TIME BOMB

The U.S. meat producer is sitting on a time bomb . . . and a recent decision issued by the Food and Drug Administration has moved up the moment of detonation.

Briefly, the situation involves the use of antibiotics in feeds to help control a long list of livestock and poultry diseases. People attacking such use contend that:

—antibiotic residues may remain in the meat and lead to an allergic reaction in consumers.

—a population of resistant bacteria may be created in the animal which could make veterinary treatment difficult or impossible.

—this population of resistant bacteria may be transmitted from animal to man and cause untreatable disease in man.

It's long been known that all biological populations . . . including bacteria . . . tend to develop resistance to any toxic material, or to any change toward a more inhospitable environment. The population somehow adapts to the challenge and a portion of it develops the capacity to survive in spite of adversity.

During the past 20 years, more than 100 billion meat animals have been brought to market weight on rations containing antimicrobial supplements . . . about **80 percent** of the meat, milk and eggs consumed in the U.S. comes from animals fed medicated feed during part or all of their life. The concentration of meat animals and birds within small areas has created the potential for disastrous epidemics among them, and antimicrobial materials play a key role in prevention of catastrophic losses.

In 1970, the FDA appointed a task force to study the use of antibiotics in feeds in the light of the three fears already mentioned. As a result of this study, the FDA is now requiring manufacturers of antibacterial drugs to come up with evidence to prove that antibiotics in feeds don't do any of those three alleged no-no's. In effect, the FDA challenges the manufacturer, "If they are not hazardous, **you prove it,** and prove that they **never will be hazardous."**

This is the concept of being judged guilty unless proven innocent. If innocence cannot be proven, then the "guilty" materials will be restricted to high-level, short-term use by a veterinarian.

The task force admitted that the use of antibiotics in animal agriculture had a value of $414 million annually to the American livestock and poultry producer . . . this figure based only on growth promotion, and not on the value of disease prevention for which most of the pharmaceuticals are sold.

The FDA rationalizes by saying that:

—there are suitable substitutes for the tetracyclines, penicillins, neomycins, streptomycins, and sulfonamides.

—the industry should develop new antibacterials reserved exclusively for livestock use.

—the antibacterials under threat of suspicion wouldn't be banned, but restricted to high-level use under the supervision of a veterinarian.

In any case, the long-term result of all the hassling will inevitably be another major roadblock in the path of meat producers . . . all the protests about "high meat prices" notwithstanding. The technology that has produced the overflowing abundance of America's horn of plenty will be hamstrung once more.

You might suppose a farm editor would rise in wrath and condemn such apparent foolishness as banning a technique of agricultural efficiency which has not been proven to be harmful. Not so, my friends . . . for I see in the witch hunt of environmentalism a great opportunity for farmers.

For generations, farmers have suffered financially for their faithfulness to the notion that unlimited productiveness is synonymous with virtue. Cheap food has as a result become looked upon as a constitutional right by most Americans.

But now the technology that has been the foundation for cheap food is being attacked and swept away. Tightening food supplies will do what no president, no Congress, and no cooperative has ever been able to fully accomplish . . . bring the prices of food up to levels where farmers can receive their full share of the economic opportunity enjoyed by their supply-limiting counterparts in business, labor unions, professions, and industry.

An important mission of national farm organizations is to push for equal standards to be applied to imported foods. If U.S. farmers can't use antibiotics in feed . . . then make damn sure that Australian meat raised **with** antibiotics can't get into our market!

At times, I wonder if it wouldn't just be simpler to mark all foods with the simple warning that, "The Surgeon General has determined that eating is hazardous to your health." After all, everyone eats . . . and everyone eventually dies.

The warning on packages of cigarettes has been accompanied by an **increase** in consumption . . . even though lots of scientific evidence links tobacco use to cancer. Maybe foods so marked would likewise enjoy an increase in consumption . . . we could feel virtuous over warning the consumers . . . and we could save the endless millions of dollars involved in chasing down real or imagined substances suspected of being dangerous to them.

THE PASSING PARADE

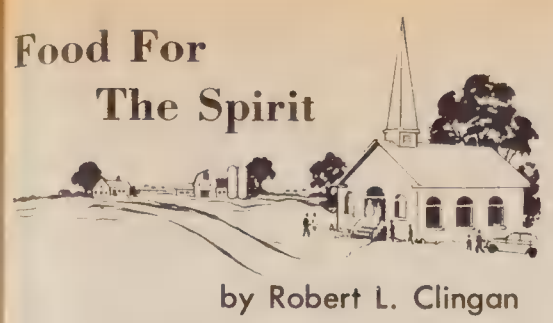
I go to a movie about once every two years, and lately have enjoyed the second go-round of the film "Sound of Music." There are a couple of lines sung in that musical that go like this:

"A bell is no bell 'till you ring it;
A song is no song 'till you sing it."

I made a note of those lines because they apply to the field of public relations in general. Later, I asked my secretary to put them on a 3×5 card for use in a speech on the subject.

When I got to that part of my talk, I found these lines on the card:

"A bell is no bell 'till you ring it;
A song is no song 'till you sing it;
And bull is no bull 'till you sling it!"



Food For The Spirit

by Robert L. Clingan

WHEN the Russian communists won their revolution, they had to decide what do do with the many magnificent churches throughout their land. Their country had a long Christian history; religious thought was, in fact, so much a part of their culture that one still cannot speak Russian without using idiom that reflects a Christian ancestry. Yet these new rulers were atheists, devoted followers of Karl Marx who had written, "Religion is an opiate of the people" . . . an opiate being a mind-altering drug which reduces sense perception and creates a condition of euphoria and well-being.

These men made religious worship taboo in Russia. Public worship in churches was forbidden. Rather than keeping the churches empty and without use, they converted the buildings into granaries and museums.

They recognized that there was great art associated with worship, and these works of art could be preserved as relics of the past against which the revolution had come. They were to be preserved, not as objects of veneration or as sources and motivations for worship, but simply to excite curiosity and commemorate the past.

There are Christians in America today who have made of their church and church life a museum, and who have allowed their symbols of faith to become dead relics of the past. These people would resent any suggestion that they follow a communistic line; they have never read a word of Karl Marx's writings. Yet they too have turned their churches and religious life into museums of ancient history.

This is something Jesus and the whole line of Hebrew prophets were totally against. The faith they proclaimed was contemporary, personal and vital, with a social application. For them, a place of worship could never be equated with a museum.

A church is a place where people come to affirm and deepen their faith, to discover their assignment. Their assignment (a modern word for the "high calling" described in the Bible) is what they are to do with their lives in the world outside the church; it is discovered as they commune with God.

Churches are beautiful. Churches have history. Churches evoke warm memories. But churches must never become museums. Rather, they are to be the launching pads and space stations that propel their members into exploring God's world and helping Him shape it more nearly to His desire.

The atheistic communists went about the business of turning churches into museums. Is there any reason to follow their example?

CERTIFIED STATEMENT

by Eleanor C. Wood

I don't think I am getting old,
Yet I admit it's true
That when they say "Remember when . . . "
I do!

Speak up for agriculture

IF you think your calls for a solution to the cost-price squeeze are falling on deaf ears, you may be right. If you want to do something about it, the newly-formed Agricultural Public Information Council (APIC) is giving you a chance to speak out. It is laying the foundation for a national public relations effort on **your** behalf.

To meet the goal, they are asking that you take a few minutes to write and let your city and suburban neighbors know how you feel about important agricultural issues. Send your letters to: Speaking Out, AMERICAN AGRICULTURIST, P. O. Box 370, Ithaca, New York 14850.

Letters must be at AMERICAN AGRICULTURIST offices by July 16, 1973 to be considered.

The sponsor of APIC, the Chevron Chemical Company, is offering awards for the best letters received. Back in the February, 1973 issue of AMERICAN AGRICULTURIST, three topics were offered to which readers responded . . . here are two more:

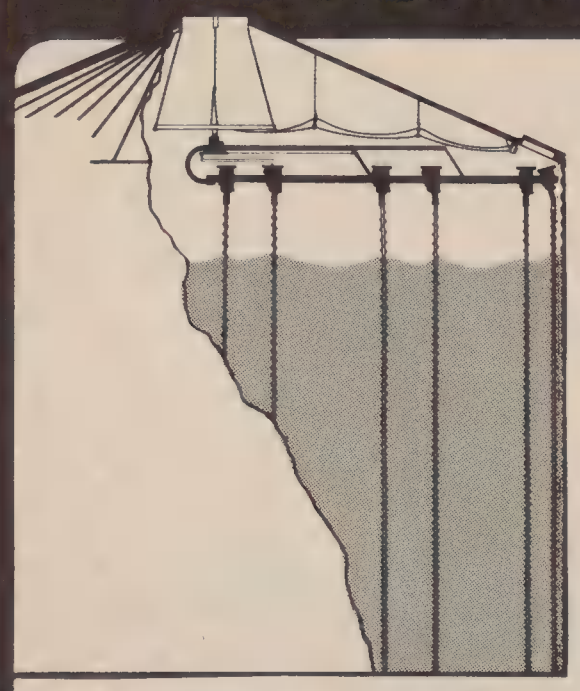
1. Farmers have been accused of making a bundle from rising food prices, and boycotters have demanded price fixing at the farm. **Do you think farmers deserve to be accused of gouging the public, and are farmers as well off profit-wise as some city people seem to think?**

2. Pressure on land is mounting rapidly in the Northeast as a growing population seeks elbowroom. Some farmers feel that non-farm people are careless of the property rights of farmers. **What's a practical way for a landowner to protect his property from abuse by hunters, fishermen, and the operators of various kinds of vehicles?**

You may write on any one topic, or both if you wish. Make your letters brief and to the point, and please sign your name and address. Send them to the address back in paragraph two.



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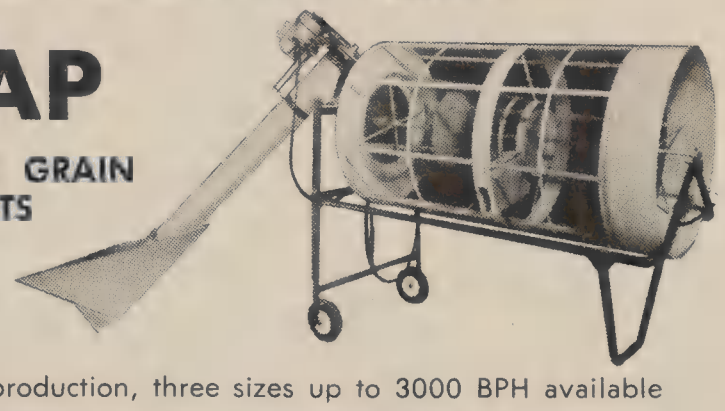
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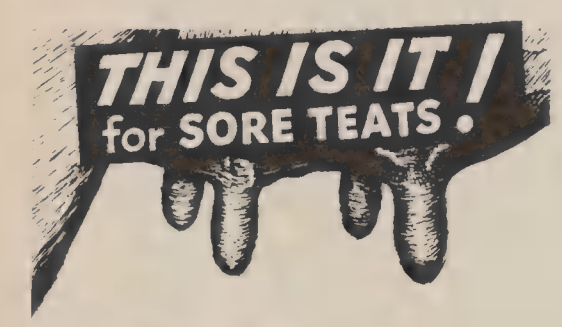
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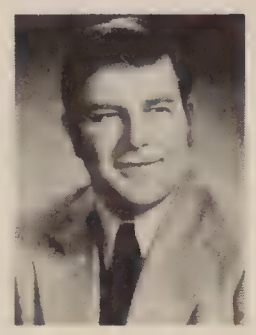
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New director of Extension

David L. Call, the H. Edward Babcock Professor of Food Economics in the Graduate School of Nutrition at Cornell University, has been named director of Cooperative Extension in New York State. He was also named professor of agricultural economics in the College of Agriculture and Life Sciences.



David L. Call

Born in Batavia and reared on a general farm near there, Call received his B.S. degree in 1954 and his Ph. D. in 1960, both from Cornell. He served two years in the U.S. Army before completing his graduate work, and was on the faculty at Michigan State University for two years before returning to Cornell as the Babcock Professor of Food Economics in 1962.

He also held joint appointments in the Department of Agricultural Economics and the Graduate School of Business and Public Administration, where he originated the Cornell Agribusiness Executives' Program and served as its director until 1968.

National

On the national scene, he was panel chairman for the 1969 White House Conference on Food, Nutrition and Health, and as consultant and economist with the National Commission of Food Marketing. He is a member of the Food and Nutrition Board of the National Academy of Science.

FOOD PRICES

When George Meany, president of A.F.L. — C.I.O., demands that food prices be rolled back or the unions will raise their wage-increase demands, what he is really asking for is . . . that everyone producing food take a **cut** in wages while workers in industry get an **increase.**

It has always been my opinion that food was a necessity of life. The American public seems to resent the fact that they have to spend part of their income for food, even though it is less than one-fifth of their income. It cuts into their available cash for alcohol, cigarettes, vacation trips, beauty parlors, second TV sets, golf, camper trailers and all the things that, "the high pay, shorter work week concept," has afforded them.

Five percent of the population in this country produces all of the food. They, too, would like shorter hours and more pay . . . and with their demonstrated ability to produce, industry would be glad to hire them.

Most of the farmers in New York State could sell their farms for non-agricultural purposes, invest the money, and make more on the interest than they are making in farming.

Unless the public, the government, and labor union leaders change their attitude, they had better look fo an alternate source of food becaus the American farmer is no longe going to produce it under the presen adverse conditions.

Unrealistic demands by organize labor and environmentalists . . . a well as ill-conceived governmen policies . . . have severely curtaile the oil industry, the textile industry the automotive industry, electronic and many others. We now depen on foreign countries for much o our supply of these products.

Perhaps these people think w can also get our food supply overseas They had better think again!—*Rich ard McGuire, President of New Yor State Farm Bureau.*

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Cherry Valley — Flint's Garage
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WE'RE GONNA OPEN YOUR EYES.

ALLIS-CHALMERS

Doc Mettler comments on:

Mini-ranch



THE lush green of early summer that seems to cover every square foot of the Northeast is a source of amazement to a visitor brought up in another part of the world. When someone mentions this it always brings to my mind the statement of school books, when I was a boy, that grass was the principal crop of the Northeast.

Questioning this, I was told that the cool, damp climate and rough topography were better suited to grass than other crops, and that the farmer grew cattle and sheep and produced milk or eggs, wool, lamb or beef because it was the best way to market this grass.

Until the skills of modern plant breeding and agriculture made corn and alfalfa our most valuable crops, grass was the primary crop in the Northeast. Even as late as 1938, most of the corn we grew was more filler than good milk-or meat-producing feed. Today the farms that are capable can produce far more milk and meat by using corn than they could by growing grass alone. But what about the thousands of acres of land, often in small patches, too wet, too steep, or too stony to produce corn?

Waste

Until this spring when our city cousins suddenly realized there was not an unlimited supply of meat to be bought for a small percentage of their income, few people ever considered that we were letting millions of pounds of available protein go to waste. Let me clarify this. The grass these idle acres grow is of no value to man until it is put through the rumen of the cow and sheep to be converted into milk and meat to become food for man.

Forward-thinking people have been aware of this unused source of food for years. Five years ago, Dr. Vernon Tharp of the Ohio State Veterinary College spoke at a New England veterinary meeting in New Hampshire. He said that as he traveled through New York and New England, he noticed the thousands of acres of unused land and felt there would come a time when this land would support small herds of beef cattle and sheep that would utilize the grass to make meat for a hungry country.

Reconsider

At the time, few people paid much attention to this idea. At the price of beef and lamb and the cost of producing it under these eastern conditions, the idea seemed like something for the year 2000. With the present demand for beef, it seems that the 1970's might be time to reconsider.

Before we begin growing beef and lamb on very many of these small plots of ground, however, we need to remember that the recent meat price increases are not necessarily permanent. For generations, farmers have been taken in by the sort of situation when low prices force low production and high prices, followed by lowered production and high prices again.

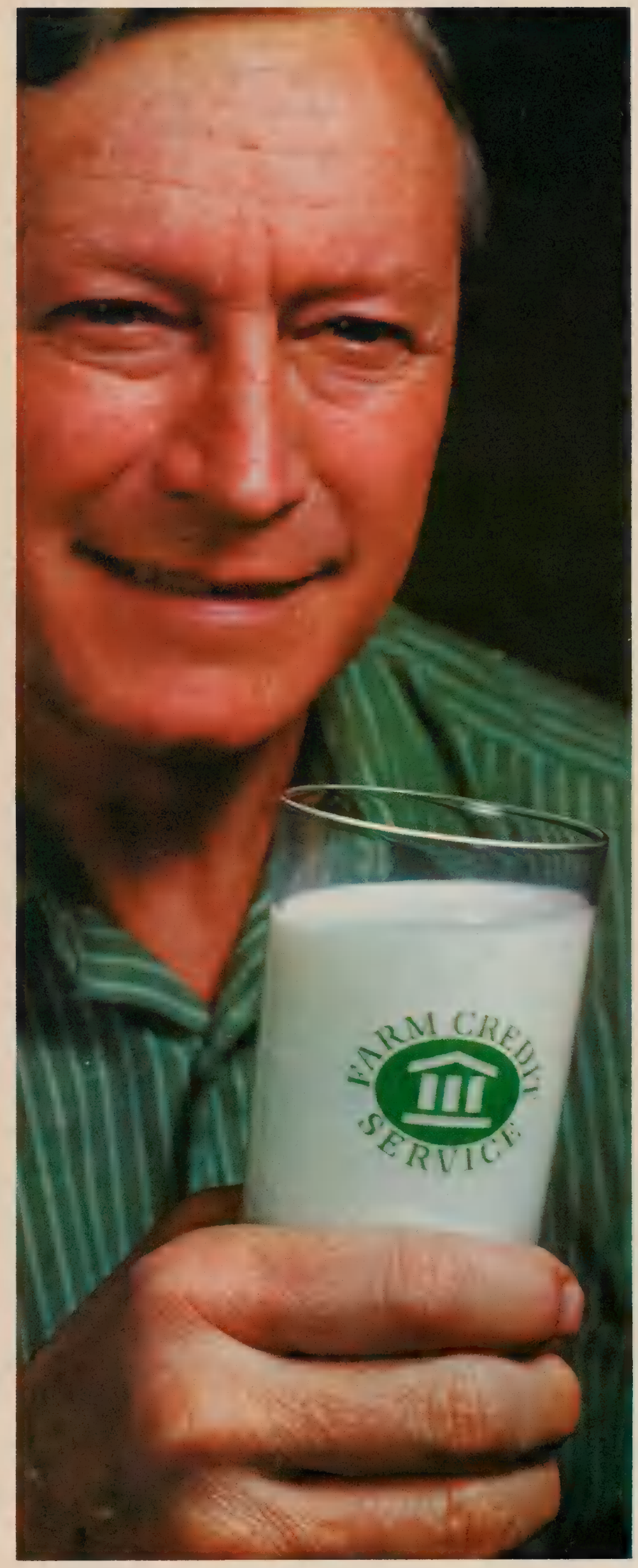
Being a veterinarian and not an economist, I hesitate to recommend that everyone with ten acres should fence it and put on beef or sheep, but I would suggest that they weigh their knowledge of animal husbandry, talk to their extension agent, consult their town zoning regulations, and give it some thought.

I would also like to see some thought given to good planning and zoning to prevent the utter waste of land when houses, roads or shopping centers are built on land fit for agricultural use.

Needs

Suppose you have a home in the country, a non-farm job and five, ten or more acres of land capable of being used as pasture, and want to grow out some beef or sheep. What do you need? First thing is good fencing. At the present cost of posts and wire, this might rule out sheep

(Continued on next page)



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"If you can borrow enough for a new addition, you can certainly afford to pay more taxes."

and perhaps cattle too. Beef cattle need a good four-or five-stand barbed wire fence, and for sheep you'd better figure on woven-wire fencing.

Don't attempt to put beef on the place unless you have catching facilities. This means building a catch pen so you can bring them in easily, and a short chute and squeeze. You can purchase plans for these, but better yet, visit beef setups in the area and find out what looks most practical and has proved practical for others.

Gates

Before building, talk to your local veterinarian. You will find he has some very definite ideas. My pet peeve is a beef cattle setup where I have to climb over a fence (or two or three) every time I want to get close enough to a cow to touch her. Provide plenty of gates and make the whole thing strong enough to hold the biggest, toughest cow or steer and adjustable enough to hold a twelve-week-old calf to castrate him.

Cattle can be taught to come into a holding pen by feeding them there, closing them in only when you need to work on them. You might ask why have a catch pen at all. I have yet to see beef cattle that did not have at least a lame foot to work on once in a while. Besides this, you will need the facility to castrate, worm, breed artificially, and finally, to catch them for loading.

For shelter, a pole barn type shed is sufficient. Besides, you will need part of this roofed area to store some hay and a small amount of grain.

If you are lucky enough to have a stream, water will be no problem. If you have a good well, pumping is not expensive. But if having cattle means drilling a well, perhaps you'd better think about that cost before you go into raising beef.

Hay

Your extension agent can advise you about pasture improvement and the availability of purchased hay. Even if you have land enough to grow hay, the cost of haying equipment is too high to consider making your own hay under most conditions. One alternative is a deal with a neighboring farmer to make the hay on shares.

I would not attempt to say whether you should start with a few beef cows and breed them, or buy stockers and start that way. I **would** say don't get involved with expensive registered cattle (unless you are experienced), since the income from a small cattle operation will be strictly from the meat it produces from the grass the animals eat.

Even if you are buying cows, registration papers will be worthless unless you can register the calves resulting from artificial breeding. You certainly cannot afford to keep a bull to breed half a dozen cows. If you find you can register the offspring of artificial breeding, and can secure registered animals at a slight premium, you cannot lose by having registered brood cows.

Starting a mini-beef farm or small sheep operation is not for everyone, and some who start will probably wish they were never given the idea. No one is going to get rich at the scheme, but on the other hand, you are not going to lose any more than the investment you might make in a snowmobile, motor boat or saddle horse. If you have children, the benefits they will receive from the experience and responsibility of caring for livestock is immeasurable. Some of the best 4-H baby beef projects are on these non-farm farms.

Even if you don't have children, the satisfaction you will get from growing out some beef, or seeing your own cow calve and raise a calf, is something your urban friends can never experience. They will find that visiting you and sharing your home-grown meat is more fun than eating macaroni and eggplant parmigiana. Most important, you will be answering the food shortage problem with a positive action.



Plowing in the midst of New York City? Yep . . . these are students at the John Bowne High School in Flushing (Queens). It has the only vocational agriculture department in the New York City school system. In addition to classwork, the urban aggies spend summers working on upstate commercial farms.

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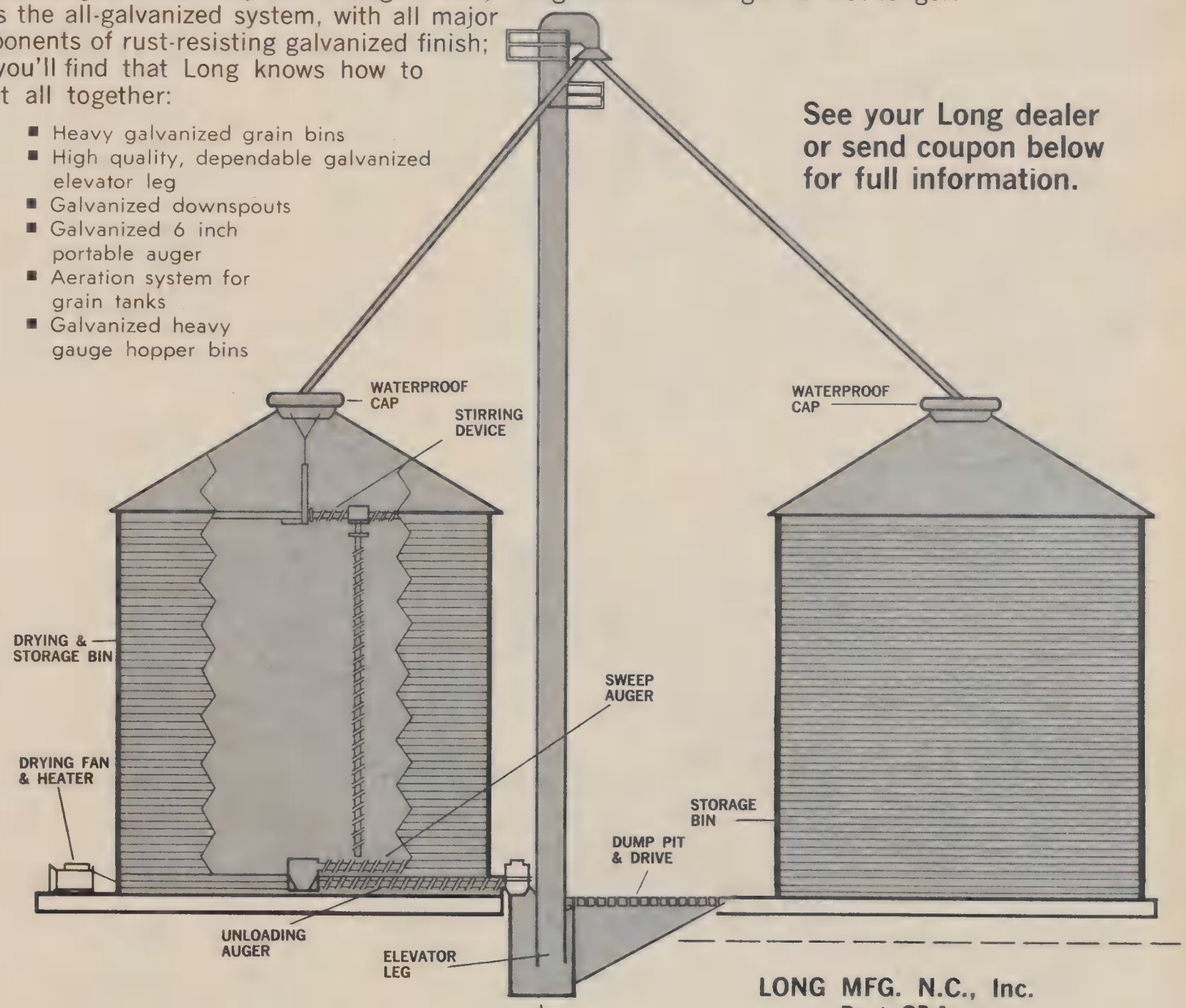
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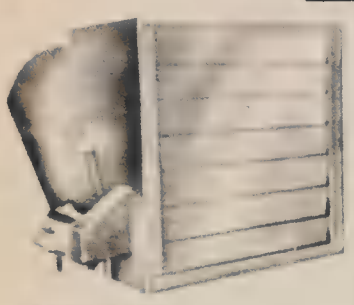
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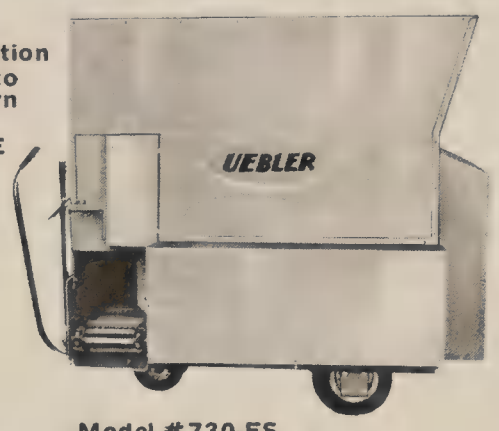
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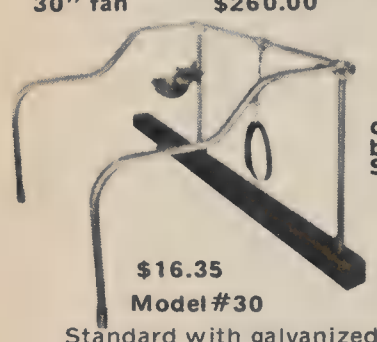
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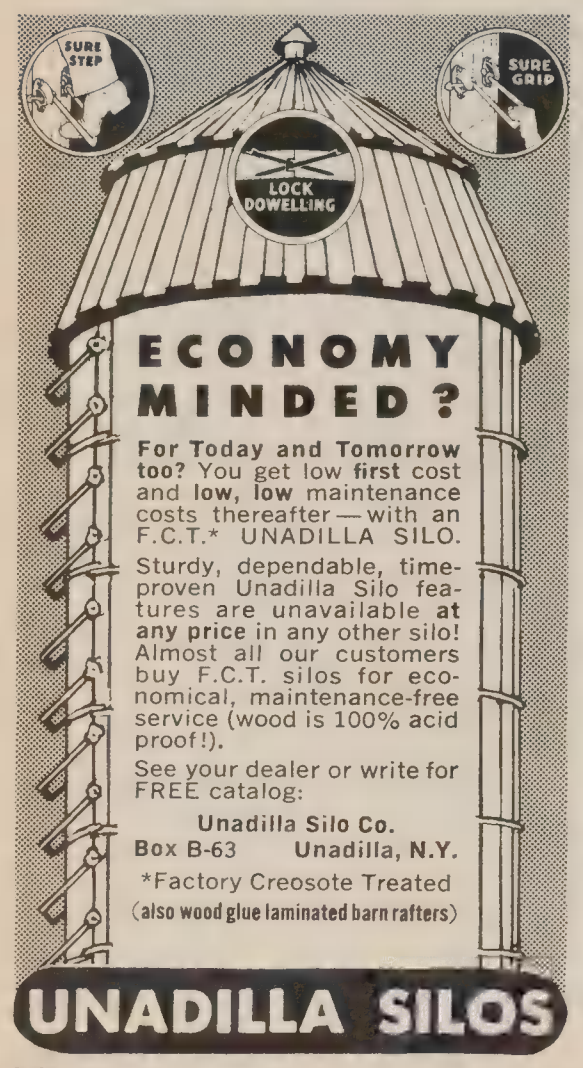
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June 10-13 - NEPPCO Egg Quality School, Quality Inn, Towson, Md. (Exit 26 of Baltimore Beltway).

June 15-16 - Colonial Invitational, sponsored by Colonial Charolais Association, Johnny Cake Ranches, Burlington, Conn.

June 15-17 - 26th Annual Delmarva Chicken Festival and Cooking Contest, Civic Center, Salisbury, Md.

June 16 - Opening of Northern New York Agricultural Historical Museum, Rt. 180, Stone Mills, N.Y.

June 17 - Annual Meeting New England Milking Shorthorn Association, Elmknoll Farm, Shelburne Falls, Mass.

June 21-23 - Annual Livestock Marketing Congress, Villa Inn, Norfolk, Neb.

June 22 - Swine Field Day, Swine Research Center, Penn State, University Park, Pa.

June 23 - World Livestock Auctioneer Contest, Norfolk, Neb.

June 24-27 - Annual Meeting International Apple Institute, Park Place Motor Inn, Traverse City, Mich.

June 24-27 - American Farm Bureau Information Conference, Rochester, N.Y.

June 29-July 1 - 6th Annual National Shorthorn Youth Conference, Oklahoma City, Okla.

July 8 - Annual Swine Field Day, sponsored by New York Swine Improvement Cooperative, Fairgrounds, Penn Yan, N.Y.

July 12-13 - Summer Meeting Empire State Soil Fertility Association, Airways Leisureland Inn, Hamburg, N.Y.

July 15 - New York Ayrshire Club Annual Field Day, Marshall Cheeseman Farm, Ellenburg Depot, N.Y.

July 16-17 - Eastern Regional Junior Angus Heifer Show, Harrisonburg, Va.

July 17 - All-American Junior Shorthorn Heifer Show, Fairgrounds, Springfield, Ill.

July 27-29 - Annual Reunion Pioneer Gas Engine Association, Fairville, N.Y.

July 30-31 - New York State Maple Tour, Chenango County, N.Y.

Aug. 3-4 - Annual Craft Fair, Northern New York Agricultural Historical Society, at Museum on Rt. 180, Stone Mills, N.Y.

Aug. 7-9 - Empire Farm Days, Cornell Research Farm, near Dryden, N.Y.

Aug. 12-15 - Annual Convention, National Association of Animal Breeders, Marriott Hotel, New Orleans, La.

Aug. 17-19 - Annual NYS Woodsmen's Field Days, Boonville, N.Y.

Aug. 18 - 4th Annual Shorthorn Show, Fairgrounds, Sandy Creek, N.Y. Judge: Clarence Worden.

Aug. 19-22 - 64th Annual Meeting, Northern Nut Growers Association, Franklin and Marshall College, Lancaster, Pa.

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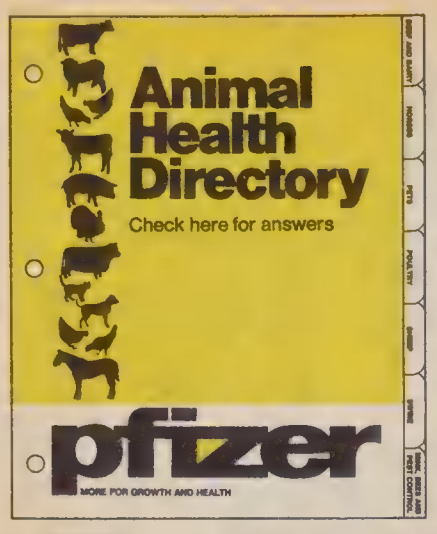
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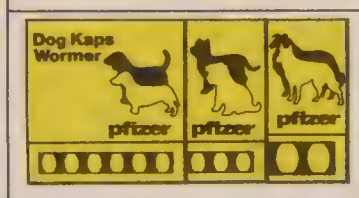
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What's NEW in the FIELD



by Bill Pardee

Fast feed

LATE summer and early fall are frequently feed-short periods on dairy and livestock farms. Too often, it seems, pasture growth slows to a standstill under summer heat and drought, the corn crop isn't ready yet and hay crops are still recovering from earlier harvests. This shortage leads to the chopping of crops better stored for winter . . . or, worse yet, the actual feeding of winter supplies.

But you can avoid this late-season feed slump. Recent research and on-farm experience point up opportunities for expanding your production during this period. And you can do this from June plantings after your main crops are in the ground.

Several Crops

Several crops offer potential for ample production of pasture and green-chopped feed. Chief among these are sudangrass and sorghum-sudangrass hybrids. But other crops are also possible, including forage sorghums, millets and even late-planted corn. Your choice depends on your feed goal, your land and how you plan to harvest the crop. The following rundown pulls together our present ratings of these crops, and some tips for getting the most from them.

Sudangrass and sorghum-sudans offer the most promise for many situations. Sown in June, these grasses can provide ample forage for late summer pasture and green-chopping. Recent tests show these can yield 10-15 tons of green forage (with 2-5 tons of dry matter) per acre.

Confusing

Names can get confusing, what with sudangrasses, hybrid sudangrasses, sorghum-sudangrass hybrids and forage sorghums all on the market. Sudangrasses, both regular and hybrid, tend to be finer-stemmed than their cousins with sorghum blood. The sorghum-sudan hybrids tend to yield more, but their young growth contains higher levels of prussic acid, a potential risk.

Forage sorghums are available, but rate as poor second choices in my book. They're thick-stemmed and can grow too tall to manage easily at harvest. And they're high in prussic acid potential . . . about which I'll say more later.

Sudans and sorghum-sudans aren't difficult to grow, so long as your ground is well-drained and reasonably fertile. If your field will grow good corn, it will also grow good sudangrass. Fertilizer recommendations are about the same as for corn. The seed can be drilled, at 20-30 pounds of seed per acre for sudangrass, 30-40 pounds per acre for the larger-seeded sorghum-sudan hybrids.

If you're growing these crops for the first time, go a bit easy on your acreage. Five acres makes a good starter. These grasses can really jump in growth if conditions are good and too many acres mean difficulties in keeping up with the crop.

As for planting date, early June is fine, with late June, even early July okay, if necessary. Your potential yield will go down as the days go by before planting; but even plantings made the first week in July can return enough forage to be worthwhile, if you need it.

Because of their fast growth these crops normally smother out weed competition. But sometimes weeds can come through. There's no good control for quackgrass, nutsedge, or annual grasses in sudans. The best place to get them is next year in a corn crop. You can control broadleaved weeds in sorghum sudangrass (not in sudan) with an AAtrex spray right after emergence. Or you can use 2,4-D on either crop when growth is 4-12 inches tall.

Best harvest time depends on your needs. Highest yields come from one big harvest, taken in mid-September, but this misses the biggest value of these crops for summer feed. Two to three harvests are possible. Depending on your planting date, you can usually commence in mid-July.

Chopping is the most common harvest method. Several Midwest studies show you'll get faster regrowth if you leave 4 inches or so stubble on sudangrass, 5 or 6 inches on sorghum-sudan.

In pasturing, it's best to graze the field hard for a week to ten days, then move the cattle to another field or area, and give the crop some time to recover. Three weeks' rest can be enough, if you have good moisture. Let growth get back to 30-36 inches before turning the cattle back in.

Hay-making isn't really practical with these grasses, since they're thick-stemmed and hard to dry. It's done in the far west under dryland conditions, but they don't have our northeastern rains to contend with.

Too Wet

We've done it by running the stalks through conditioners **twice** to crush the stem, then drying them for a week in the field. But rain will usually get you first, and you're more likely to end up burning the crop than baling it!

Everybody who recommends sorghum-sudans always qualifies his suggestion with a warning about prussic

acid poisoning. This is possible, but unlikely to occur if you use the crop right. Prussic acid concentrates in tender young growth, becomes diluted as plants grow past 12-18 inches tall. But cattle like tender young shoots and may pick out the shorter shoots, if they can.

Actual reports of prussic acid poisoning are few and far between so it's not something to get disturbed about, nor is it a reason to avoid using the crop.

The solution is easy. Just let new growth or regrowth get above 18 inches in height and you'll have no problem. This holds for first growth, second growth after cutting, and even new growth starting after a drought.

The only other risky period is right after a frost, when the newly-frosted plants can hold the chemical at toxic levels until it dries out.

Fall growth, or even short growth that's dried down after freezing, loses its prussic acid content and is safe to feed.

Reduce Risk

One way to reduce prussic acid risk is to plant one of several sudangrass varieties specifically bred for low prussic acid content, and usually safe at all growth stages. Piper is a popular variety of this type, as are several private varieties now coming on the market.

One warning, however, is definite and clear-cut. **Don't pasture horses on these grasses.** Their green forage can cause "cystitis syndrome," a serious disease of the urinary tract. But again, this is in horses and not in cows. So keep Dobbin out of the field, and save it for the cows.

Corn planted in mid-June won't put much grain in the silo, so it'll produce lower energy silage than the crop you planted in mid-May. But even so, corn is a fast grower, and it's likely to put out more tonnage per acre than any other annual grass, no matter when you plant it. Following last summer's floods, many farmers planted corn up into July and gained needed tons of feed.

Millets

Each year we find some interest in millets, but I see little use for these crops except as curiosities. Japanese, German, Hungarian and Siberian are all possible; but all fall below the sudans and sorghum-sudans in yield if the soil is reasonably well drained.

About the only exception is Japanese millet which finds some use on cold, wet hill soils, where sudans might have trouble with wet feet. Even here, I'd suggest splitting your crop, and planting sudangrass on drier areas of the field, or right across the field next to the millet, as a check to see which does best.

Buckwheat, a popular crop in great-grandpa's day, has been declining in acreage for generations, as demand slackened for old-time buckwheat pancakes. Its main use in recent years has been as a cover crop or emergency grain crop, and it's been generally a money loser.

But recently, new health foods (and now even a popular breakfast cereal) feature this grain, and all of a sudden buckwheat is back in demand. Several mills in central New York (Penn Yan and Canandaigua) are contracting for buckwheat production at prices up sharply from recent years. Returns still may not excite you, but it may be worth considering if you've had experience with this crop and have suitable land.

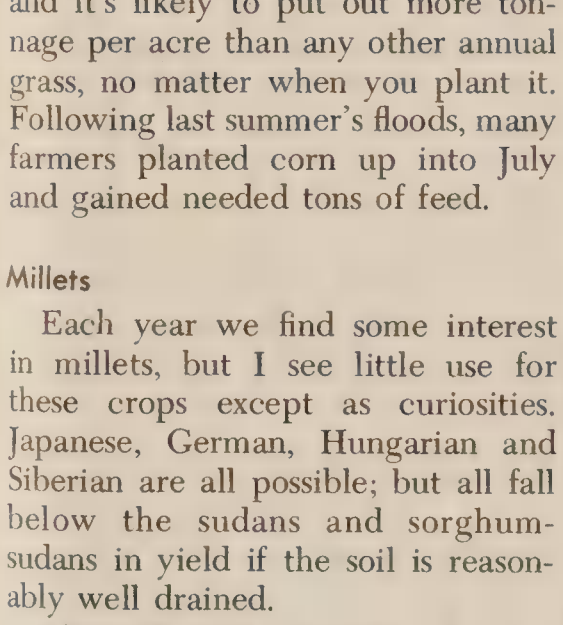
Buckwheat is cheap to grow, requiring no fertilizer, unless soil phosphorus is very low. Planted in late June or early July, it will ripen in 10-12 weeks and be ready for combining in early October.

The biggest trick in growing buckwheat is to keep it standing long enough to harvest. Buckwheat is truly a poor-land crop. Sow it on a deep, fertile soil and it's likely to go flat. The same will happen if you fertilize the crop, particularly if you put on nitrogen.

The Pennquad variety, a Penn State release, has looked good in Pennsylvania. However, New York growers have found it erratic in yield and easily lodged. Most seed on the market is common buckwheat of the old silverhull type. Best seeding rates are 3-6 pecks per acre.

Hold off sowing until the last week in June or early July. Earlier planting risks flowering during hot August weather, which can blast the flowers and cause poor seed set.

Even at present prices, buckwheat won't get the family to Florida or help much on the mortgage. Fact is you'll want to do some careful pencil-pushing to learn whether it will pay a profit at all. But farmers with experience or interest in growing buckwheat may want to check out improved possibilities for grandpa's crop.



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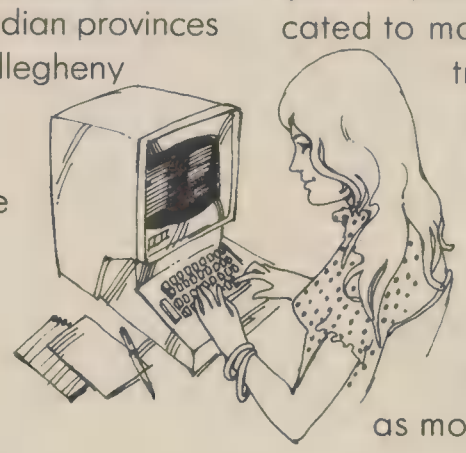
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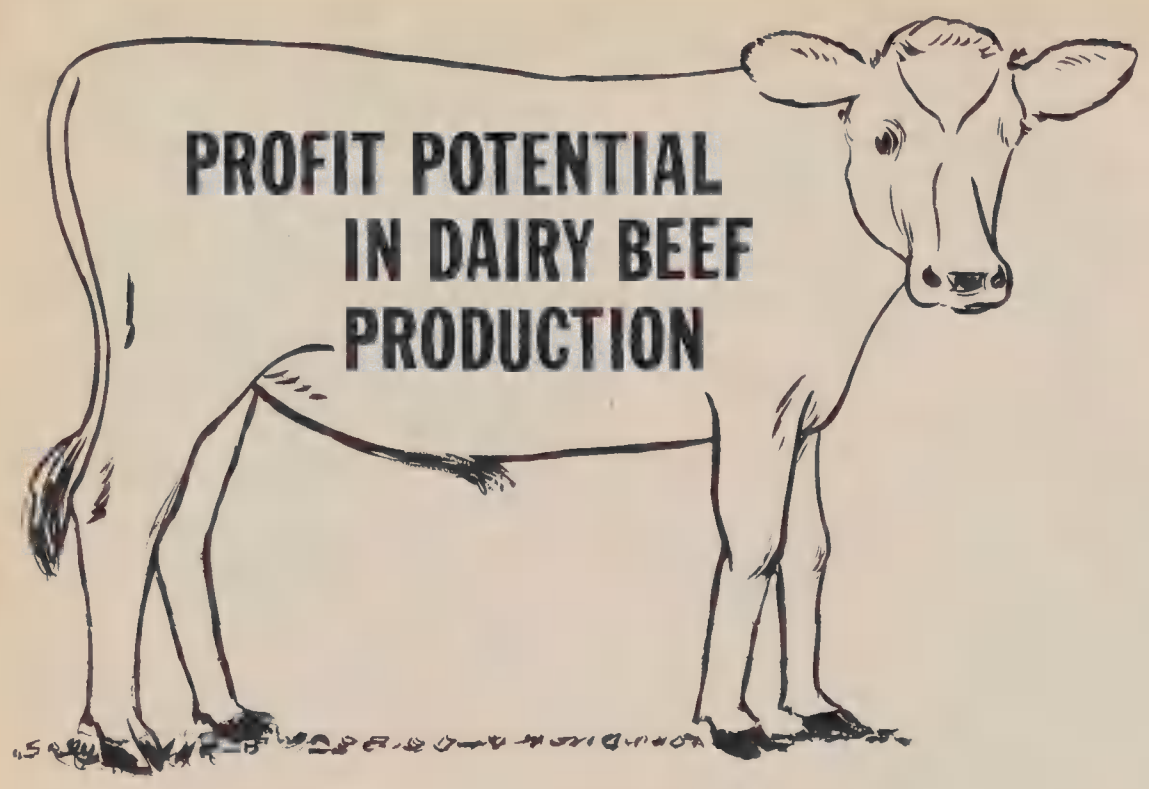
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PROFIT POTENTIAL IN DAIRY BEEF PRODUCTION

Editor's Note — Several feed companies have programs to assist feeders in producing beef from dairy animals. Here's information from Allied Mills about one such program

COMPANY officials of Allied Mills believe there is a bright future in the Northeast for raising Holstein feeder calves in dairy beef production. The company is constructing two new feed plants in New York State (at Alexander and Sangerfield) that will manufacture not only a complete line of dairy feeds, but also other feeds used in specialized livestock production operations such as that described here.

Called Flav-R-Beef, the program involves new concepts in the starting, growing, and finishing of dairy bulls or steers. The producer uses automated nursing machines that require little labor, and applies research-tested feeding and health programs that bring these purebred Holsteins to beef market weights of 1,050 pounds within as little as one year after they are born. Beef-breed animals usually are two years old when marketed.

Robot Cow

Producers starting these bull or steer calves (that might otherwise have been slaughtered for veal) take incoming groups of 60 calves, each averaging about 110 pounds in weight. They feed these calves with an automated nursing machine manufactured in France and distributed throughout the United States.

Known as the Maternal Robot, it has one rubber nipple on each side and 30 calves take turns suckling free-choice the warm mixture of milk replacer from the machine's two nipples. The machine keeps the mixture in solution and dispenses it as calves suckle it out. These nursing machines are sold or leased to producers by Wayne Feeds dealers . . . each unit enables a farmer to start 300 calves annually (in batches of 60 each).

Company officials report that starting producers . . . those who keep the calves on the nursing machines until the animals are about eight to twelve weeks old and weigh about 220 pounds each . . . can expect a gross profit over feed, animal and medication cost of about $30 per head over the twelve-week period. Producers who grow the calves from 220 to 425 pounds weight can expect a labor profit return of about $20 per head. The producer who finishes the cattle all the way from birth to market can realize a gross return over feed, animal and medication cost of from $70 to $100 per head.

"Buying the calves at favorable prices, and keeping the mortality below 10 percent, can increase these profit returns," livestock specialists at Allied say.

Mrs. Roberta Mark of Dansville, New York, for instance, started a group of 71 steers in a 35′×50′ converted horse barn and fed out the Holsteins in her own simple feedlots. "My records show a gross profit per head of $54.21 each for the 71 head that averaged 1,025 pounds at market time," she states.

Mose Garippa, owner of Dansville Farm Supply, the Wayne Feeds dealership in that area, pioneered the dairy beef program in New York.

He comments, "We bought one of the nursing machines in 1971 and fed out 44 calves in a dealer-owned pilot project. We made a $600 gross profit return over animal and feed costs, and then we held a field day and invited 100 of the most prominent dairy farmers in our area.

"The field day demonstrated to dairymen that calves could be raised successfully on a substitute mother . . . and without too much death loss. We wanted to dispel the image of calf raising as a 'necessary nuisance' that farm wives and children get stuck with because heifers are needed as milking herd replacements.

"Dairymen expressed keen interest in our experience with the robots. But surprisingly, even greater interest was expressed by some professional livestock producers who could see the profit potential in Flav-R-Beef production.

"We placed three Maternal Robots with three different professional-type producers. On two batches of calves started on these machines, we kept records right on through to market and the cooperating customers obtained a $74.21 profit over feed and animal cost for each of the 74 calves started."

Ralph Lash, Northeast area sales manager for Allied Mills, and a native New Yorker, has this to say about the program:

"We know there is a good market for 400-pound feeder calves, and there is an excellent opportunity for farmers to produce these feeder calves, even if they don't have sufficient feed grain to feed out these animals all the way to market. And the demand for beef is increasing. We know from our market research that cattle numbers can be increased faster with the dairy breed than with established beef breeds. Holsteins lend themselves to immediate production of more beef and they also can be 'turned off' more quickly if the beef market takes a downturn."

Livestock census figures show there are some 434,700 bull calves dropped each year in New York State alone. Pennsylvania has some 311,850 bulls each year available for beef production.

Up Income

In these two states alone, there stands a potential opportunity to increase farm income more than $50,000,000 in red meat production annually for those producing what some consumers feel is a distinctly better-tasting beef. The enhanced flavor is because of the animal's age at finishing . . . in turn stemming from the genetics of the Holstein breed that enable it to grow at such a rapid rate.

Currently, nearly 100 Flav-R-Beef producers have more than 20,000 head on feed in New York, Pennsylvania, Maryland, Ohio, Michigan, Indiana, and Iowa. Many of the Holsteins finished as beef are marketed to A. F. Moyer & Sons of Souderton, Pennsylvania, whose general manager, Larry Bubbenmoyer, has this to say about them:

"Flav-R-Beef is a good product with the consistent quality we can rely on for our Vac-Pak merchandising of boneless primal cuts that are 90 percent lean, red meat. Flav-R-Beef Holsteins going through our packing plants consistently grade about 85 percent high USDA good, and about 15 percent low USDA choice. Because of our planned expansion, and the good reception in supermarkets for this beef, we now are paying two to three cents per pound premium over prices paid at local livestock markets. Hopefully, we can increase our buying of these Holsteins to 26,000 head annually."

Newcomer

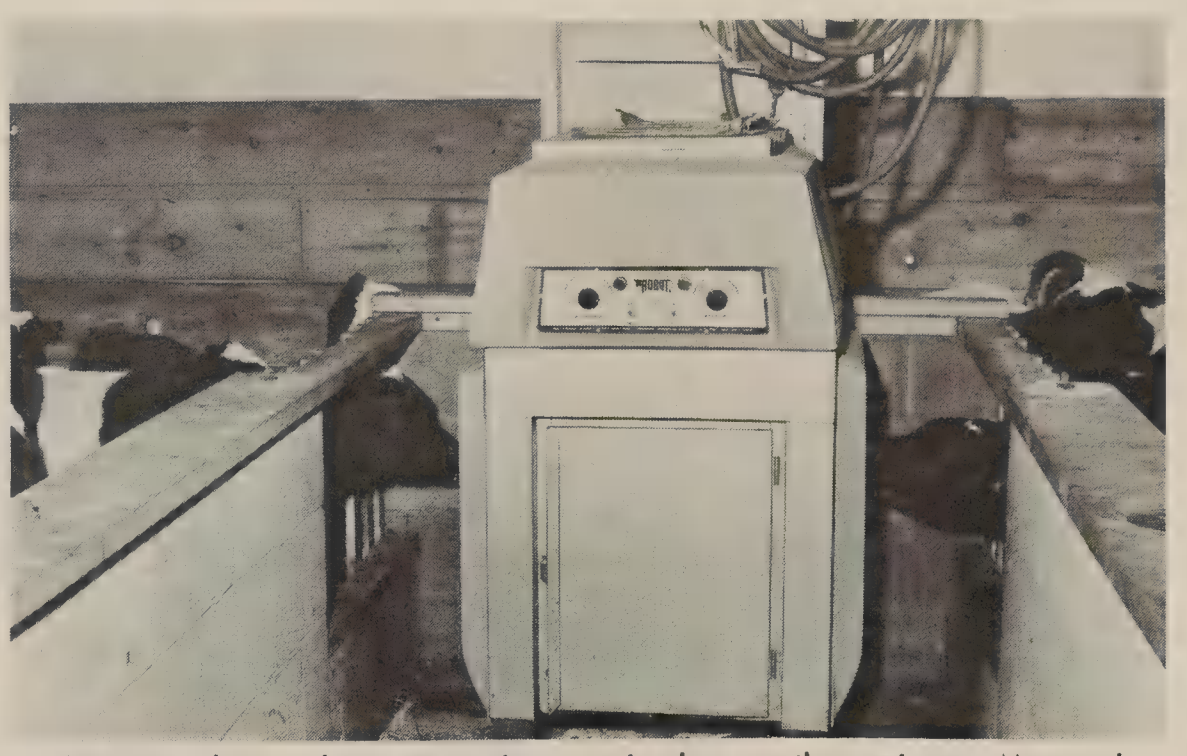
A newcomer to feeder-calf production is R. C. Bledsoe of Route 2, Oxford, Pennsylvania, a barber who, with his wife, Betty Lou, "likes to raise animals." With about $3,500 worth of their own labor, plus $6,500 cash outlay for a new Stanley building, the Bledsoes obtained as fine a starting unit as a calf-grower could ask for.

The building measures 30′ wide × 48′ long and has a six-foot-deep pit which is five feet wide and extends across one 30-foot end of the starting unit. The floor of the building is concrete and slopes so that manure liquids and solids drop through slats and are flushed into the pit at the end of the house.

A sump pump is used to draw out the liquid manure, which is later spread onto the fields. Allied Mills field specialists are working closely with the Bledsoes in keeping odors under control with a new product that neutralizes odor-producing bacteria produced by animal wastes.



Field livestock specialists of Allied Mills work closely with Flav-R-Beef producers. Pictured, from left: Allied Mills representatives Larry Nobis and E. A. Sypher; Wayne Feeds dealer Mose Garippa of Dansville, New York; and Mrs. Roberta Mark, also of Dansville.



Arriving calves in the starter unit are trained to use the stationary Maternal Robot nursing machine. Machine has two nipples, each of which nurses 30 calves on an around-the-clock basis.



Typical starter unit for Holstein calves measures 30′ × 48′ and has a six-foot-deep pit beneath it to collect liquid manure. Building houses two pens of 30 calves each. Typical new starter unit for 60 calves costs about $11,000.

Bledsoe's building has one Maternal Robot serving 30 calves on each side of the building that confines a group of 60 calves. Across one end of the building is a "sick bay" area where individual care can be given ailing calves until they are ready to rejoin their group.

Bledsoe tries to buy calves that average about 110 pounds, and thus far he has been able to secure them through a local auction stockyards for about $56 each. The Pennsylvania farmer started 62 head January 18, 1973, and never lost a calf during the first week. He reported two lost in the second week and one dead in the third.

He comments, "I plan to raise the calves to about eight weeks of age, and to a weight of about 200 pounds. At that time, the calves will be sold to someone wanting to grow them to heavier market weights."

Powl's Feed Service, of nearby Peach Bottom, serves this starting unit. Bledsoe, like Powl, realizes that more of the simpler, drylot cattle finishing units are needed as "grow-out homes" for the numbers of feeder calves started in the Maternal Robot units, and grown to 200 pounds in weight.

Robert P. Bucher, agricultural relations officer of the Commonwealth National Bank of Lancaster, Pennsylvania states that branch banks of his company have nearly $400,000 loaned out in Flav-R-Beef production. "We started financing some of these units about two years ago. Financing was for the building, calf cost, and feed cost . . . if the individual had the management know-how we felt he needed to succeed.

"Our experience with these loans is that they are very sound. We see more and more consumers buying this lower-priced, yet good-quality beef because there is little waste and almost no fat cover. We would caution however, that the MAN in the word MANAGEMENT is all-important. If the man (or his wife) has a reputation for being a good calf raiser, and will follow the feed company's production and management programs, then we are in a position to increase the number of loans for more of this type of production."

In the words of the Pennsylvania banker, Holstein beef animals just seem to "grow into money!"

The Song of the Lazy Farmer

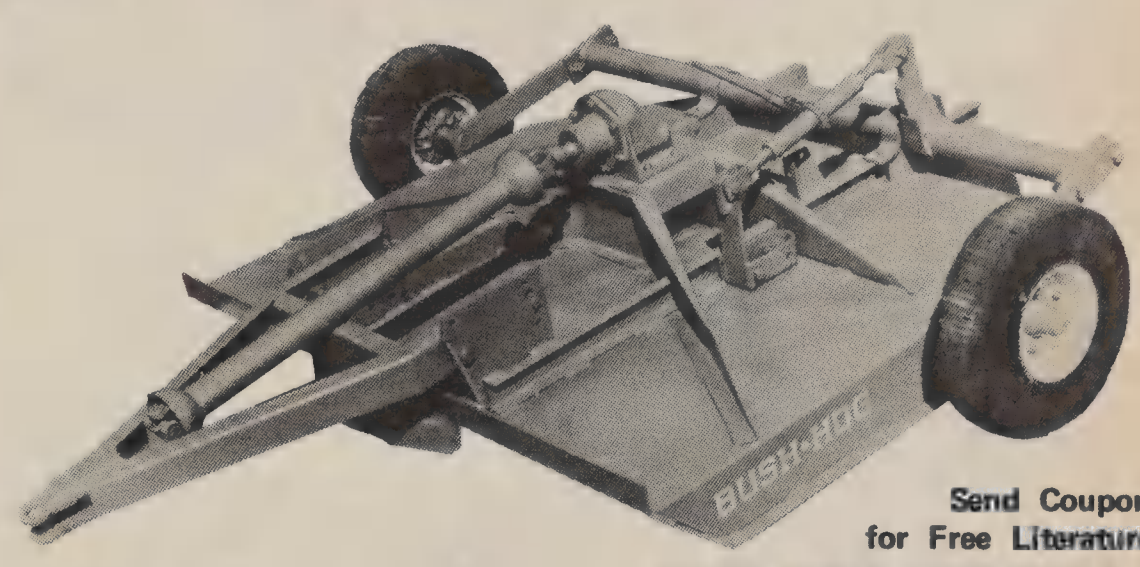


When fish are biting in the crick,
it surely makes a feller sick to work
at making hay from grass when he
could be out-witting bass. There is
no pleasure that I like as much as
seeing them fish strike; when they
are full of vim and fight and have a
husky appetite for angleworms, the
thing to do is not wait 'til the chores
are through, but grab your bait and
trusty pole and park beside a fishing
hole. When fish are anxious to be
caught, it seems to me I shouldn't
ought to let my bus'ness interfere
with watching bobbers disappear.

My neighbor's in an awful stew,
he thinks there's so much work to do
before these nice warm days slip
past; but years keep going by so fast
that if we don't take time for fun,
first thing we know our race is run.
Hard work is all right in its place,
but if we wear out in the chase for
dollars, it don't make much sense;
there isn't any recompense for happiness, not even wealth, and nothing
can replace good health. So I'll just
sit here with my pole to rest my body
and my soul; while neighbor works
until he's beat, I'll keep my disposition sweet.

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Will the family farm survive?



Amidst the strident sounds of political conflict, an agricultural economist calls for perspective and reason . . .

by Don Paarlberg
Director of Agricultural Economics, USDA.

IN the early days of our country there arose a great debate: What kind of agriculture should we have? Should it be like the farming that developed in New England . . . individual family farms? Or should it be in large units, as in the South and in areas settled by the Spanish?

We chose to be a nation of predominately family-sized farms, with decision-making responsibility in the hands of the man who tilled the land. This issue was written into law through a series of governmental actions: The Ordinance of 1787, the Homestead Act, the Reclamation Act, and many others.

We congratulated ourselves on our decision, which perhaps achieved a greater degree of consensus than any other in the area of agricultural policy. With this policy we developed a progressive and dynamic agriculture, the envy of virtually every other nation. Our agricultural system had in it sufficient flexibility to accommodate itself in a wide range of climate and geography and to the various cultures of immigrants who came here from all over the world.

But now, we are told, this family style of organization is in jeopardy, threatened by scientific and technological developments. Corporate farms, conglomerates with farming divisions, vertical integration, mass merchandising, contract farming . . . all of these are said to pose a challenge to the family farm. The family farm is said to be an endangered species.

A question that was thought to have been settled a hundred years ago has been reopened. We are entering upon a renewed debate as to what kind of agriculture we want. The outlook for the family farm is fully as important a subject as the outlook for the corn and cattle grown on that farm.

Agriculture is going through a great change, brought on by the advance of technology. Years ago, it was customary for the farmer himself to supply virtually everything needed to make the farm go: land, labor, capital, management. This was the essential feature of the family farm. But now, with modern technology, the inputs needed are often beyond the command of one person.

A modern farm, big enough to supply an income equivalent to what could be earned in town, might involve an investment of a quarter of a million dollars or more. The managerial skill required to operate a modern farm is very great. Not every farm-raised young man can qualify.

So a new idea has come into agriculture. Or, rather, an old idea long used in industry is being applied. Capital, land and labor are now obtained separately and combined in optimum fashion, under good management. This is the idea that transformed the hand loom into the textile factory, and the ironmonger's shop into the steel plant.

Some sectors of agriculture already have been remade along industrial lines. The poultry industry is one such. The broiler industry now probably bears a closer resemblance, organizationally, to a great oil company than it does to the historic family farm. Is this a unique case or does it foreshadow the future? Prototype or aberration? Ask this question of any group of farmers and you are assured of a heated argument.

Viewers with alarm see all kinds of dire events impending, in the family farmer were to be replaced by the large-scale corporate-type farm. A valuable way of life would be lost, they say. The family farm represents, in the minds of many, an idealized form of pre-industrial living, the son apprenticed to the father, the older people living out their lives in usefulness and dignity, living close to nature and producing food, the most needed product of all.

The idea comes from Rousseau, the eighteenth century French philosopher. It was powerfully advocated in this country by Thomas Jefferson.

This paradise, the believers think, is in danger of being lost. Agricultural production might be dominated by a few huge agribusiness firms, which would then use their monopoly power to extort high prices from the American public. The family farm, it is said, is not just a way of producing crops and livestock; it is a way of producing people . . . good people. Oliver Goldsmith said it many years ago in *The Deserted Village:*

Princes and lords may flourish or may fade.
A breath can make them, as a breath has made.
But a bold peasantry, their country's pride,
When once destroyed can never be supplied.

"Romantic nonsense," say those who believe in "modernizing" agri-

culture. What is so different about agriculture? Why should agriculture be organized on a family basis when practically everything else is industrialized? If a large-scale corporate-type farm can produce food and fiber at a lower cost than a family farm, it should be free to do so. Such industrializing of agriculture as has thus far occurred has served to reduce the price of food, not to increase it. Witness broilers and turkeys.

Besides, say these advocates of an industrialized agriculture, the merit of the family farm was a myth in the first place. Family farmers exploited their children, it is said, and deprived them of education. Are people of family farm background really superior citizens? The evidence is in dispute.

Many of those who praise the family farm do so from their air-conditioned downtown offices, having long ago left the family farm with its drudgery and deprivation. Their advocacy of the family farm is the result of selective memory.

What are the facts? Can the family farm compete? Or is it doomed to lose out to the corporate farm? What is needed in the way of adjustments if it is to succeed? Is there enough merit in the family farm so that we should try to keep it, even at some penalty in the form of food costs higher than would otherwise occur?

Large-scale corporate-type farms have not come in across the board, but on a selective basis. This kind of farming is prominent for broilers, eggs, turkeys, sugarcane, citrus fruit, seed production, and certain crops for canning. It is not prominent in cereal crops, dairy products, most livestock enterprises, and much of our diversified farming.

Why these differences?

There are certain conditions that are conducive to the industrialization of agriculture. One is the existence of a large body of unused scientific knowledge, which family farms are unwilling or unable to adopt.

For example, years ago poultry science was far ahead of application, as practiced by family farmers. Typically, the farmer's wife kept a small flock of chickens. Sanitation practices were poor. Nutrition was also poor; the birds scrounged a precarious living in the barnyard, competing with the pigs and cows. They hid their nests in the straw stack and roosted on the corn binder in the machine shed. They laid eggs only during the spring, when the normal avian urge gave them no alternative.

Mom's Money

"Egg money," kept in a cookie jar in the pantry, provided cough syrup, school books, and occasionally a ticket for the movies. Given this low state of poultry technology, there was great incentive for large-scale producers to come in, adopt new methods, employ good management, and establish a new industry.

Agriculture also takes on an industrial pattern when large-scale production has special efficiencies. This tends to be the case where large-scale equipment is needed and where operations are repetitive. Sugarcane production is one such enterprise. Specialized fruit and vegetable farms are also of this type. Cattle feeding is moving in this direction.

But for the majority of farms in the United States, most efficiencies of size have been gained with a suitably equipped two-man operation. This is true for wheat farms, dairy farms, and diversified feed grain-livestock farms.

True enough, a larger farm will produce more income, but only because it provides the return from more resources. The real measure of efficiency is output per unit of input. And for most of agriculture something approaching optimum efficiency is attainable within the capability of a well-equipped two-man operation.

Another setting conducive to large-scale agriculture is the existence of opportunity to link production directly with marketing. For example, the development of frozen concentrated orange juice provided opportunity to market a standard product throughout the year at a relatively stable price. To do this required the linkage of production and marketing, called "vertical integration." Family farmers, being production oriented, could neither visualize nor exploit the opportunities latent in this kind of operation.

Large-scale farming operations develop where history and tradition are conducive to them. It is not surprising that large-scale units are common in California, tracing back to the huge Spanish land grants. One reason that large-scale units are accepted in the South is the long historical dominance of the plantation system. Large-scale farming has not caught on well in the Midwest, which was settled family style, under the Homestead Act.

We have said that large-scale farming comes where there is unused scientific knowledge, where size provides substantial economic efficiencies, where special opportunities exist for the exploitation of market opportunities, and where it is in keeping with tradition. I judge these attributes to be sufficiently limiting so that the trend toward large-scale farming will be gradual, selective, and never total. In recent years, a number of large-scale farming operators have failed: Black Watch, Gates Rubber, CBK Agronomics, Multiphonics, Great Western Land Company, and the Heinz Oregon-Idaho operation.

Wrong Question

The public policy issue regarding our farming institutions commonly is posed in this fashion: "Are you for or against corporation farming?" This is an erroneous statement of the question. An enormous amount of effort has been expended trying to give the right answer to the wrong question.

Only about one percent of our farms are incorporated. They produce about eight percent of our output. And two-thirds of the one percent are family farms, incorporated for tax or inheritance purposes or for increased borrowing capacity. They are indistinguishable from family farms except in legal form. If the farm corporations were to be banned, we would deprive the family farm of one way to meet the competition of super-large units.

Contracts

"Contract farming" also comes in for discussion as a public policy issue. People line up for and against it.

Contract farming usually involves a contract between a farmer and a processor, to sell a certain amount

(Continued on page 19)

The what, why and how of the family farm

I take the view that the family farm is a very tough competitor, a very durable institution. It has survived war, depression, inflation, and natural disaster. With a few highly visible and much publicized exceptions, it has thus far adapted itself very well to a technological revolution.

I define a family farm as one on which the majority of the labor and decision-making are supplied by the farmer and his family. We do not have a good measure of how many family farms there are by this definition. We have not tried hard to identify the location at which decision-making occurs, whether with the farm operator or with the supplier of some input item, or whether with the processor.

We do know about the labor input. **On about 95 percent of our farms, the farmer and his family supply the majority of the labor. This percentage has been virtually unchanged for decades.** These farms produce about two-thirds of our farm production, a percentage that also has been rather stable over time. If we define the family farm as one on which the majority of the labor and decision-making are supplied by the farmer and his family, it appears safe to say that this is still the dominant institution in American agriculture, whether measured either in numbers or in output.

One of the strengths of the family farm, as compared with the huge industrialized unit, is its resilience. Suppose a bad year comes along, either in the form of poor yields or low prices. The big industrialized unit has high fixed costs, labor perhaps being the chief one. With income down and with fixed costs high, the big farm may go under. But the family farmer, who is self-employed, pays himself a lower wage, postpones some maintenance costs, pulls in his belt a notch or two, and is still there the next spring, ready to go. However, as the family farm becomes larger and purchases more and more of its inputs, this kind of resilience is reduced.

The family farmer is self-employed, self-supervised, and self-motivated. He works long hours at planting time and during harvest as the need arises. He naturally directs his efforts to wherever the payoff is greatest. He is always on the alert as to the health of his herd or the condition of his crop; he will stay up all night, if need be, at lambing time.

Contrast this with "the hireling, whose own the sheep are not," to use the Biblical phrase. For many years those large-scale farms that used hired labor were exempted from social legislation: collective bargaining, retirement programs, minimum wages, maximum hours, conditions of health and safety, regulations regarding child labor, and availability of foreign nationals. These exemptions are now being stripped away. An advantage long enjoyed by the large-scale farms is being lost.

A family farmer looks on his farm not just as an income-earning enterprise, but as a place to live and as an assured way of continuing to do the work he prefers. All of these considerations enter into his estimate of the value of his land. Thus he holds his land at a price that the corporate-type farm finds hard to meet.

To bid the land away from a family farmer the farming corporation must not only bid for the land; it has to bid away the farmer's home and his job security. Our figures in the Department of Agriculture show that on the average, farm real estate earns only about a three or four percent return; it is difficult for a corporate-type farm to borrow money in the financial markets, at seven or eight percent, and repay the loan.

The family farm has taken a new and durable form, the part-time farm. A man lives on his farm, which may be too small to provide an adequate income by itself. He drives five or 25 miles or more to a nonfarm job and works there 40 hours a week. He runs his farm nights and weekends, taking a week off in the spring for planting and another week in the fall for the harvest. He lives in the country, where he wants to, among his friends and his relatives, in a culture he knows and loves.

At the same time, he increases his income and improves his level of living. Off-farm sources of income for farm people now constitute about half the net farm income. Part-time farms, which were once thought to be a kind of hybrid, a transition toward either off-farm work or full-time farming, now appear to be a new species, capable of surviving and flourishing.

They are tough competitors for the large-scale farms. With his off-farm income, a part-time farmer will work on his farm for a low hourly return and will accept a low return on his farm capital. **Part-time farming is a new development that increases the comparative advantage of the family farm.**

So we should not give up quickly on the family farm. It is likely still to be around when those who despair its survival have gone on to their reward.



by Amos Kirby
New Jersey Editor

Roadside marketing

THERE are about 1,000 roadside markets in New Jersey. The bellwether of the roadside market movement is the New Jersey Certified Roadside Market Association under the direction of Nelson Sherrard of the Farm Bureau.

Members have a market system for quality products that includes growers of sweet corn and greenhouse tomatoes, as well as apple and peach producers who can supplement the products from one's own farm. A member need not be a grower of every item. The goal is to supply the consumer with a quality product, known for its freshness and grown in New Jersey.

Last fall, the Certified group operated a market in the famed Cherry Hill Mall, Camden County. It attracted more than 100,000 consumers who bought about everything that could be supplied. This year there will be **two** markets staged in the same place.

The Cherry Hill demonstration has convinced marketing officials that the public is eager to buy farm-fresh products, and pay a price comparable to (or even a premium over) supermarket prices.

NO CHEAP FOOD

Francis Webb, agricultural agent in Kent County, Delaware, says, "The day of cheap food is over." He compares food costs with wage rates, and notes that industrial wages have increased by 140 percent over the last 20 years . . . but food prices have risen only 47 percent in the same period.

Mr. Webb is not alone in his thinking on future food prices. The New York Times recently carried a similar headline which said, "The day of cheap food may be over."

This country may be approaching a food crisis comparable to the fuel and energy crisis so much in the news of recent weeks.

Prices at the farm will not always remain at prevailing levels, nor should we believe that there will never be overproduction and low prices at times . . . but a growing number of people think that farm prices in the future will enable the producer to recover costs plus a modest profit.

In recent weeks, I have spent much time on the food-price situation, and there is sufficient evidence to support that statement regarding future prices.

SOYBEAN BREAKTHROUGH

Delaware, the largest soybean-growing state in the Northeast, is working on a new approach to higher yields. It is centering its approach on two major projects . . . a better control of weeds, and improved understanding of nitrogen utilization by this crop. Dr. William Mitchell, extension agronomist, calls it "soybean nutrition."

His approach is that a crop of 40 bushels per acre contains about 150 pounds of nitrogen in the beans alone. Under normal conditions, the plant is able to absorb only half the nitrogen it needs from the air. The problem appears to be centered on developing a form of nitrogen that will make up the balance.

The 40-bushel goal has been achieved on a few farms where soil fertility is ample. What Dr. Mitchell is seeking is a formula on how to get the plants to respond to nitrogen to raise the state's prevailing 25-bushel yield to the 40-bushel-plus area.

To date, soybean yields on the average are little or no higher than they were back in 1907!

HISTORIC BOOKS

If anyone is interested in historic books on agriculture in the Garden State, the New Jersey Agricultural Society has a series of seven, written by the late Dr. Harry B. Weiss. These books are reasonably priced and have a most interesting background on what has taken place since 1781. For the list, write Phillip Alampi, Department of Agriculture, Trenton, New Jersey 08625.

ALFALFA MINER

This may be the year for the alfalfa leaf blotch miner to be a problem. In May, adult leaf miners appear as tiny flies, make many pinhole punctures in alfalfa leaves.

Later the larvae (miners) tunnel between the leaf surfaces, causing the characteristic mines. Several mines per leaf can cause leaf drop and lower hay quality. Best remedy is a prompt first cutting which will reduce the need for chemical control.

PEACH OUTLOOK

The June drop of New Jersey's 1973 peach crop will determine how many bushels of fruit will be available in July and August.

County agent Leslie Miller of Camden County reports that, despite an excellent bloom on most varieties, a substantial number of the fruits have dried up. The early varieties that developed a normal blossom supply show the largest percentage of dried fruits. In view of freeze injury in nearly all eastern peach areas, this may be a year of better peach prices.

NEW ASPARAGUS PACK

The New Jersey Farm Bureau is sponsoring a new all-green asparagus pack designed to sell machine-harvested asparagus on the fresh market.

Tests conducted in 1972 show that consumers will pay a substantial premium for the all-green over the standard bunch pack that has been marketed for many years.

The all-green is packed in various weights, mostly about one pound per package, and goes to stores in a see-through plastic container that has an extended shelf life. Based on the 1972 tests, consumers were paying about 80 cents per pound for this pilot pack.

MILK INCREASE REFUSED

The Pennsylvania Milk Control Board has denied Interstate Milk Producers Cooperative and other farm groups an increase in the price of milk. They had requested an increase of two cents per quart, due to rising production costs.

The dealer groups protested, and the Milk Board turned down the producers' request because consumer groups were not represented at the hearings.

What is wrong with milk prices at 30 cents per quart, when many soft drinks are selling at 35-40 cents per quart?

Dollar Guide

DAIRY IMPORTS will jump with recent authorization of 50% increase in cheese-import quotas. Dairy leaders worry that dairy industry might be sacrificial lamb on altar of U.S. trade negotiations with European trade bloc for trade concessions on other items.

Dairy co-ops are storing supply of dried milk powder so government can't claim "consumer need" this fall to justify letting imported powder into U.S.

EGG PRICES (USDA, NY, large white, wholesale) forecast by experts to average 47 to 48¢ per dozen during 12 months ending April 1, 1974. July-Sept. forecast 48¢, Oct.-Dec. at 50¢, and first quarter of 1974 at 49¢.

FERTILIZER SHORTAGES are predicted to continue into 1974. Suggestions ... fertilize legumes with materials lower in phosphorus and higher in potash (0-10-40 in place of 0-15-30, for instance).

Consider applying phosphate and potash this fall to next year's corn land.

GASOLINE AND DIESEL fuel storage tanks ... keep 'em full. Shortages may develop, and prices of fuel will climb.

"BLUEPRINT COMMISSION" in New Jersey recommends plan whereby each municipality in state would be required to designate at least 70% of its prime farmland as Agricultural Open Space Preserve (AOSP). Landowners in Preserve could sell to state, (or to others), development easement (difference between market value and farm value of land). Land in AOSP could be used only for agriculture.

PRICE CEILING on beef at retail level approximates $71/cwt. for USDA Choice beef at Chicago ... in turn putting an indirect ceiling on live steers around $47/cwt.

DAIRY PROMOTION budgeted to spend $4,820,000 from New York Dairy Promotion Order in fiscal year ending April 30, 1974. Assessment continues at 5¢ per hundredweight.

YANKEE MILK, INC. is marketing milk from 900 Dairylea producers in eastern New York and western Vermont. Yankee has Dairylea representatives on its board of directors.

SIDEDRESSED NITROGEN on corn should be applied when corn is 6 to 15 inches high. Most efficient when liquid or dry material put into ground with special equipment, but spinner-broadcast urea or ammonium nitrate will do the job.

MILK PRODUCTION in North Atlantic region for first 3 months of 1973 was down 6% from same period in 1972. Both cow numbers and production per cow are down compared to '72.

Family . . . . .

(Continued from page 17)

of broilers or tomatoes or sugar beets at a stated price. The contract is sought by both parties; the processor wants an assured supply and the farmer wants a known market. These contracts are often drawn by the processor and offered unilaterally to the farmer on a "take it or leave it" basis.

Naturally, farmers resent being bound by terms in which they have no input. There is a dispute. Contracts are considered by some as a mechanism of "vertical integration," and therefore incompatible with the family farm in its idealized form.

However, it seems to me that the right to enter into a contract is one of the rights of a free man. Rather than to outlaw the contract, it would seem better to provide opportunity for farmers to organize and negotiate with the processor concerning its terms.

Future

We have been dealing with the future of the family farm, a legitimate way of posing the question. But if we dig deep below the question we find another, which is perhaps even more basic. "Who is going to control agriculture?"

Fifty years ago this would have been a ridiculous question. Everyone knew who was going to control agriculture; it was the farm operators, family farmers. They provided the land, labor, and capital; they made the decisions; they ran the farm organizations; they elected the Congressmen. But with the decline in the number of farmers, and with modern large-scale agriculture, this becomes a very pertinent question.

Who is to control agriculture? Will it be the bankers, who supply the money? Or the feed manufacturers, contracting forward toward retail markets? Or the food chains, contracting backward toward their supply? Or the processors, capturing the farmers with their unilaterally-designed contract? Or some non-farm corporation, using agriculture as a tax haven? Or hired farm labor, with their new unions? Or government, with its massive commodity programs? Or will the farm people themselves be able to retain control of their operation?

The family farm is seen by many as a means of preserving the most precious of all prerogatives, the right of decision-making. The perception may be in part subliminal, but it is nevertheless real. Much of the emotional commitment to the family farm is thus explained.

Mistakes

Mistakes have been made by underestimating the force of this commitment. Many farm operators will fight to the last ditch against an institutional change that would convert them from self-employed status to piece workers or wage hands, even though their incomes might be increased in the process.

One way that family farmers could retain their decision-making role and still gain the advantages of large-scale buying and selling is through cooperatives. In many cases they could integrate their production and marketing, improve quality and flow to market, and provide an assured home for their produce, all by the use of farmer cooperatives. More and more of this is occurring. Cooperatives, which were once thought of primarily as a way of getting a better return, may turn out also to be a way of preserving the farmer's decision-making role.

Committed

Some of the most deeply-committed friends of the family farm offer proposals of great danger. In romantic dedication to an earlier ideal, efforts are made to hold the family farm in the mold of the past. A low limit on size, denial of access to modern management practices, restrictions as to legal form, sharp limitations on the right of inheritance . . . any of these could be a handicap to the family farm. In combination, they could cripple it.

The family farm must be allowed to grow in size so as to take advantage of modern technology. An effort to hold it in the mold of the past would be to condemn our farmers to substandard income and our consumers to a high-cost diet.

Some innovations may be needed to adapt the family farm to modern conditions. It may be that with capital requirements so large we will have to turn to rental arrangements, keeping decision-making in the hands of the operator though capital may be supplied by someone else. It may be that new credit institutions will have to be devised; it may be impossible for the ordinary family farmer to achieve debt-free status during his lifetime, starting with low equity.

We may come to see perpetual debt not as an indication of failure but as an institution deliberately sought in order to preserve entrepreneurship. All of which is to say that we can't hold things rigid in conformity with some earlier standard.

Trend

There is nothing inexorable about the trend toward large-scale agriculture. Legal tools are available to check the trend: Prohibitions of one sort or another, graduated taxes, and limitations on the amount of government payment going to any one farm.

With a representative government, the people can have any kind of agriculture they want. And I think they will insist on having what they want.

Suppose for a moment that the large-scale farming units are more efficient than family farms. People are asking whether, in as affluent a country as the United States, efficiency should be the sole criterion for the form of agriculture we are to have.

We now supply ourselves with food . . . the best diet ever, anywhere . . . with about 16 percent of our income. If we stay with the family farm and improve its efficiency, the percentage of income spent for food will go still lower. Should we adopt a new and greatly different system so as to drive food costs down even faster? Should we sacrifice a form of agricultural production that has served us well, better than any other country has ever been served?

This is a fair question. The answer to it is properly social and political as well as economic. I believe this to be a major farm policy issue of the decade ahead.

Pluralistic

And I do not think our agriculture need be or will become monolithic, relying on one managerial concept only. We are a pluralistic country . . . socially, politically, and economically. The fact that the trend has been in the direction of large-scale units does not mean that this trend must be extended until it embraces all of agriculture. Nor does it mean that large-scale farming units should be abolished.

I see no good reason to prevent us from having a farming system that is partly large-scale and partly family farms. Those who believe in market competition should also believe in the appropriateness of competing institutional forms.

For most American agriculture, the family farm can continue to be the major organizational form:

— If it is permitted the flexibility that will allow the efficient use of modern technology and management.

— If it is provided with good research, education, and credit.

— If it makes wise use of the principles of cooperation.

— If it has access to the market.

— If it continues to enjoy the good will of the public.

As I judge the mood of the American public, this is the wish and the intent.

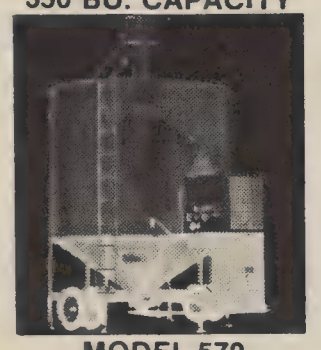
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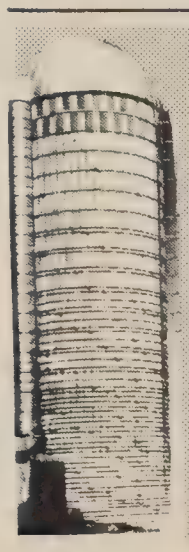
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1973 FAIR DATES

Information Supplied by
State Departments of Agriculture

CONNECTICUT

New London County 4-H Mall Exhibit, Norwichtown	June 21–22
North Stonington Fair	July 13–15
Marlborough Grange Fair	July 20–22
Pachaug Community Fair, Griswold	July 20–22
Connecticut Agricultural Fair, Durham	July 27–29
New Haven County 4-H Fair, North Haven	Aug. 3–5
Fairfield County 4-H Fair, Bethel	Aug. 10–12
Lebanon Country Fair	Aug. 10–12
Coventry Town 4-H Fair	Aug. 11
Winchester Grange Fair, Winchester Center	Aug. 11
Litchfield County 4-H Fair, Goshen	Aug. 11–12
Middlesex County 4-H Fair, Durham	Aug. 11–12
Preston City Fair	Aug. 17–18
Bridgewater Country Fair	Aug. 17–19
Hamburg Fair, Lyme	Aug. 17–19
Tolland County 4-H Fair, Rockville	Aug. 17–19
Windham County 4-H Fair, Woodstock	Aug. 18–19
New London County 4-H Fair, Franklin	Aug. 19
Brooklyn Fair	Aug. 24–26
Chester Fair	Aug. 24–26
Hartford County 4-H Fair, Windsor Locks	Aug. 24–26
Southington Grange Fair	Aug. 25–26
Cheshire Fair	Sept. 1–2
Goshen Fair	Sept. 1–3
Woodstock Fair	Sept. 1–3
Haddam Neck Fair	Sept. 2–3
Ledyard Fair	Sept. 6–8
Hebron Harvest Fair	Sept. 6–9
North Haven Fair	Sept. 6–9
Portland Agricultural Fair	Sept. 7–9
Wapping Fair, South Windsor	Sept. 7–9
Cherry Brook Grange Fair, North Canton	Sept. 8
Echo Grange and Mansfield 4-H Fair, Mansfield Center	Sept. 8
Wethersfield Grange Fair	Sept. 8
Bethlehem Fair	Sept. 8–9
Norfield Grange Fair, Weston	Sept. 9
Rocky Hill Grange Fair	Sept. 9
Four Town Fair, Somers	Sept. 14–16
Granby Grange Fair	Sept. 15
Norwich Grange Fair	Sept. 15
Prospect Grange Fair	Sept. 15
Terryville Country Fair	Sept. 15–16
Wallingford Grange Fair	Sept. 15
Meriden Grange Fair	Sept. 21–22
Guilford Fair	Sept. 21–23
Mad River Fair, Waterbury	Sept. 21–23
Beacon Grange Fair, Northfield	Sept. 23
Durham Agricultural Fair	Sept. 28–30
Danbury Fair	Sept. 29–Oct. 8
Berlin Fair	Oct. 5–7
Harwinton Fair	Oct. 6–7
Glastonbury Grange Fair, South Glastonbury	Oct. 13
Riverton Fair	Oct. 13–14

MAINE

Bangor Agricultural Fair	July 28–Aug. 4
Pittston Fair, East Pittston	Aug. 2–5
Wesserunsett Valley Fair, Athens	Aug. 4
Northern Maine Fair, Presque Isle	Aug. 6–11
Cochnewagan Fair, Monmouth	Aug. 9–12
Skowhegan State Fair	Aug. 10–18
Knox Fair, Union	Aug. 20–25
York County Fair, Acton	Aug. 23–26
Piscataquis Valley Fair, Dover-Foxcroft	Aug. 23–26
South Kennebec Fair, Windsor	Aug. 27–Sept. 3
Hancock County Fair, Blue Hill	Aug. 31–Sept. 3
Litchfield Farmers' Club	Sept. 7–9
Central Maine Fair, Lewiston	Sept. 8–15
Oxford County Fair, Norway	Sept. 12–16
Franklin County Fair, Farmington	Sept. 16–22
New Portland Lions Club Fair, North New Portland	Sept. 22–23
Cumberland Farmers' Club, Cumberland Center	Sept. 23–29
World's Fair, North Waterford	Sept. 28–29
West Oxford Fair, Fryeburg	Sept. 30–Oct. 6
Sagadahoc Fair, Topsham	Oct. 7–13

NEW HAMPSHIRE

Stratham Fair	July 27–29
Cheshire Fair, Keene	Aug. 1–5
North Haverhill Fair	Aug. 3–5
Canaan Fair	Aug. 9–12
Cornish Fair	Aug. 17–18
Belknap County 4-H Fair, Laconia	Aug. 18–19
State Fair, Plymouth	Aug. 23–26
Hopkinton Fair, Contoocook	Aug. 31–Sept. 3
Coos and Essex Fair, Lancaster	Aug. 31–Sept. 3
Hillsboro County Fair, New Boston	Sept. 8–9
Rochester Fair	Sept. 14–22
Deerfield Fair	Sept. 27–30
Sandwich Town and Grange Fair	Oct. 8

VERMONT

4-H State Day, Barre	June 2
Vermont Dairy Festival, Enosburg Falls	June 2–3
Windsor County Field Day, Brownsville	July 7
Bennington County Field Day, Sunderland	July 28
Connecticut Valley Fair, Bradford	July 27–29
Lamoille County Field Day, Hyde Park	Aug. 3–4
Orange-Windsor County 4-H Dairy Day, Tunbridge	Aug. 3
Washington County 4-H Dairy Day, Waterbury	Aug. 3
Washington County Field Day, Waterbury	Aug. 4
Addison County Field Days, New Haven	Aug. 9–12
4-H State Dairy Day, Burlington	Aug. 13
Orleans County Fair, Barton	Aug. 15–19
Caledonia County Fair, Lyndonville	Aug. 23–26
Deerfield Valley Farmers' Day, Wilmington	Aug. 25

(Continued on page 28)

More fair dates on page 32 (back cover).

Dairy authorities speak out on better cow milking



Walter F. Wilson/President/
International Association of Milk,
Food and Environmental Sanitarians

Welded lines: Great help in producing a quality product.

Reviewing changes in California's dairy milking practices over the past ten years brings two important changes to mind:

One—nearly 100 percent of all milking operations use a pipeline system.

Secondly—well over 50 percent of those pipeline milking systems use welded joints completely throughout except where joining to other equipment, such as receiver jars, pumps, tanks, filters, etc.

Neither of these changes happened overnight but once they were tried, their use by California dairymen continued to grow steadily. Why? A summary of the superior features of a welded pipeline, whether the summary was made by an inspector, a milk producer, or a milk distributor, would certainly include the following:

1. Better and easier cleaning and sanitizing
2. Less possibility for loss of vacuum control
3. Less foaming of milk in the pipeline
4. Lower initial cost of installation and lower maintenance costs.

Observations on dairies and milk plants in California during the last 25 years have resulted in the following conclusions relating to welded joint pipeline milking systems.

In-place circulation cleaners cannot accommodate excessive foaming because the foaming interferes with cleaning action. Pockets of foam prevent cleaning solutions from reaching the surface of the pipeline. Air leaks which so often occur at unions in jointed pipelines can cause foaming and thus interfere with good cleaning action. Sanitizing solutions cannot work on improperly cleaned surfaces. Properly welded pipeline joints clean as completely as the entire length of the pipeline. By eliminating air leaks, welded joints therefore help provide superior cleaning and sanitizing of pipelines. Welds in pipelines must be of good quality without pits in the welded areas.

Vacuum stability is an essential part of all successful pipeline milking systems. Proper size of lines, vacuum pump, regulator, and vacuum reserve are all necessary parts but all of these good features can be ruined by air leaks at joints in the pipeline milkers. The best vacuum system ever designed cannot compensate for continual air leaks. Without good control of vacuum in a milking system, milking-rest ratios are not clearly separated. This poor milking procedure may result in mastitis aggravation. Welded lines prevent this possible cause of vacuum loss.

Mixing of air and milk at body temperature can cause two of milk's most severe flavor defects—oxidized and rancid milk. Both of these flavors have other factors involved but it has been demonstrated that air mixed with milk through air leaks in pipeline milking does contribute to these bad flavors. They both reach a point at which the average consumer can detect them and will refuse to drink the milk. Obviously, no milk distributor can have these flavors in his milk and hope to retain customers. There is no practical way that either of the flavors can be removed, or even masked in milk once the defect has developed. Welded pipeline joints reduce the possibility of air leaks to a minimum.

The final but not the least important consideration is cost. The cost of each welded pipe union is less than the cost of a conventional sanitary pipe union. Add to this the continuing cost of opening the joints for cleaning when needed, the use of gaskets when leaks occur, and you will agree that welded pipe joints start cheaper and maintenance remains cheaper.

These four benefits: better sanitation; reliable vacuum control; control of flavor; and lowered costs are all important to quality-minded milk producers.

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This is one of a series of topics developed by noted Dairy authorities. For a complete set write for a free booklet.

Cool Salads And Desserts

by Mary Ann Sieczka

Summer is just around the corner . . . soon you will be thinking about cool food for the hot days ahead. Also, June is Dairy Month, and the following recipes use many of our nutritious dairy products. I hope you will enjoy trying them and that everyone, family and guests alike, will enjoy eating them.

CREAMY CHEESECAKE

3 cups cottage cheese, drained
5 eggs, slightly beaten
¼ teaspoon salt
1 teaspoon vanilla
¼ teaspoon almond flavoring
1 cup sugar
¾ cup flour
1½ cups milk
Jam Sauce

Press cottage cheese through sieve or blend with 1 cup of the milk in blender until smooth. Add eggs, salt, vanilla and almond flavoring; mix thoroughly. Combine sugar and flour and slowly blend into cheese mixture; add milk.

Pour into 9″ square pan. Set dish in shallow pan of water (about 1 inch deep) and place on middle oven rack. Bake at 350° for 1 hour or use clean knife test. Surface may be pale. Cool, cut into squares and top with sauce.

JAM SAUCE

½ cup strawberry jam
½ teaspoon lemon juice
¼ teaspoon vanilla

Combine ingredients thoroughly and spoon on cheesecake.

GOLDEN TREASURE PIE

1 20-oz. can crushed pineapple, undrained
½ cup sugar
3 tablespoons cornstarch
2 tablespoons water
⅔ cup sugar
1 tablespoon butter
2 eggs
¼ cup flour
1 cup cottage cheese
1 teaspoon vanilla
½ teaspoon salt
1 cup milk
1 10″ pastry shell with fluted edges

Combine pineapple, ½ cup sugar, cornstarch and water in small pan. Bring to boil, cook 1 minute, stirring constantly. Cool. Blend ⅔ cup sugar and butter; add flour, cheese, vanilla and salt and beat until smooth. Slowly add eggs, then milk to cheese mixture, beating constantly. (The latter mixture can be put into a blender, starting with liquid ingredients first, then dry.)

Pour pineapple mixture into unbaked crust, spreading evenly. Gently pour custard mixture over pineapple, being careful not to disturb the first layer. Bake at 450° for 15 minutes, then at 325° for 45 minutes. Use clean knife test for doneness.

BERRY BAVARIAN PIE

1 quart strawberries or raspberries
1 cup sugar
1 tablespoon unflavored gelatin
3 tablespoons cold water
3 tablespoons boiling water
2 cups whipped cream
1 baked 9″ pastry shell

Crush berries in mixing bowl, add sugar and let stand ½ hour. Soak gelatin in cold water, then dissolve in the boiling water. Stir gelatin mixture into the berries. Cool this mixture. When it is about to set, fold in the whipped cream. Pour into pie shell and chill 3 to 4 hours. Top with whole berries before serving.

CHOCOLATE BAVARIAN CREAM

1½ tablespoons unflavored gelatin
¾ cup sugar
½ teaspoon salt
1 cup milk
4 eggs, separated
2 squares unsweetened chocolate, cut in small pieces
2 teaspoons vanilla
½ teaspoon rum extract
1 cup whipping cream, whipped

Combine gelatin, ½ cup sugar, salt, milk and egg yolks; mix. Cook, stirring constantly, until mixture coats spoon. Add chocolate and stir until melted. Cool until mixture begins to thicken, stirring occasionally. Fold in vanilla, rum extract and whipped cream.

Beat egg whites until they hold soft peaks; gradually add remaining ¼ cup sugar and continue beating until they hold stiff peaks. Fold into chocolate mixture. Pour into 5-cup mold. Chill until firm. Serve plain, with additional whipped cream or chocolate sauce. Makes 8 to 10 servings.

VELVET DESSERT

½ cup butter or margarine
1 cup flour
½ cup diced roasted almonds
¼ cup sugar
1 3-oz. package lemon flavored gelatin
½ cup sugar
1 cup boiling water
1 cup dairy sour cream
1 cup halved fresh green grapes or strawberries

In large heavy skillet, melt butter. Combine flour, almonds and ¼ cup sugar with melted butter; mixture will form a ball. Stirring constantly, cook over medium high heat, 3 to 5 minutes until mixture is medium golden and crumbly. Put crumb mixture into 8-inch square pan; reserve ½ cup mixture for topping. With back of fork, lightly press crumb mixture onto bottom of pan. Refrigerate until completely cooled.

Dissolve gelatin and ½ cup sugar in boiling water. Add sour cream. Mix with rotary beater until well combined. Refrigerate until thickened but not set, about 1 hour. Fold in fruit and pour filling over crust. Chill until firm, about 3 hours. Sprinkle reserved crumb mixture over top of filling. Makes 12 to 16 servings.



Photo: National Dairy Council

A molded dessert is an elegant finale for a summer dinner. This Chocolate Bavarian Cream might be called gourmet cooking without effort — and gourmet eating at its best.

Favorite Dressings For Fruit Salads

PINK CLOUD DRESSING

Blend 1 cup dairy sour cream with 2 to 3 tablespoons raspberry jam. Makes about 1 cup.

1-2-3- DRESSING

In medium saucepan, stir together grated peel and juice of 1 lemon, 1 lime and 1 orange; add 1 egg and 1 cup sugar. Cook over medium heat, stirring constantly, until mixture boils. Boil and stir 1 minute. Cool; cover and refrigerate. Makes about 1½ cups.

HONEY DRESSING

⅔ cup sugar
1 teaspoon dry mustard
1 teaspoon celery seed
½ teaspoon salt
½ teaspoon paprika
¼ teaspoon pepper
⅓ cup honey
1 cup salad oil
5 tablespoons lemon juice
1 tablespoon vinegar
1 teaspoon grated onion

Mix all ingredients and refrigerate 8 hours to blend flavors. Makes about 2 cups.

A-B-C SALAD
(Serves 10-12)

A — One 3-oz. package Lime Jello dissolved in 1 cup hot water or fruit juice. Add 1 medium can fruit cocktail, drained. Cover bottom of 9″×13″ pan and let set.

B — One 3-oz. package Lemon Jello dissolved in 2 cups hot fruit juice. Mix with one 8-oz. package cream cheese and 1 cup chopped nuts. Pour gently over first mixture. Let set.

C — One 3-oz. package red Jello dissolved in 1 cup hot water and 1 cup cold juice. Pour over mixture B after it is set. Let layer C set and serve as a colorful salad or dessert.

CREAMY FRUIT SALAD

1 can (8¾ oz.) fruit cocktail, drained
2 bananas, cut crosswise
1 small unpared apple, diced
½ cup seedless grapes
½ cup mandarin oranges
5 maraschino cherries, halved
¼ cup miniature marshmallows
½ cup whipping cream, whipped and tinted with a few drops food coloring or cherry syrup

In a large bowl, combine all the fruits and marshmallows. Fold in whipped cream. Refrigerate at least one hour. Just before serving, garnish with cherries, oranges or fresh strawberries. Makes about 6 servings.

Do you have . . . . .

A recipe for rose hip jelly you would send to **Ms. Carol Naab, Long Hill Rd., Afton, N. Y. 13730?**

A recipe for old-fashioned German cooked cheese or pot cheese? **Mr. Jacob Dexheimer, 7348 Shawnee Rd., North Tonawanda, N. Y. 14120,** sends in this request.

An old blue and white agate enameled pie tin you would sell to **Mrs. Raymond Cates, Preble, N. Y. 13141?**

Copies of Pillsbury Bake-Off Cookbooks No. 1 and No. 10 you no longer want? **Mrs. Thomas Litzenbauer, R. D. 2, Callicoon, N. Y. 12723,** is interested in getting them.

Any idea where "Lindane tablets" may be purchased? **Mrs. Harold W. Lynn, R. D. 1, Auburn, N. Y. 13021,** says she wants them to use in an electric wall-type burner.

A President Eisenhower and/or Mamie Eisenhower plate you would sell to **Mrs. Roy F. Fisher, R. D. 1, Sodus, N. Y. 14551?**

A fireless cooker with or without stone you would sell to **Mr. Gerald Filer, P. O. Box 795, Easthampton, N. Y. 11937?**

An instruction booklet for operating an old sewing machine called "Sew Best"? **V. Tripp, R. D. 1, Raymond, N. H. 03077,** would be very grateful if she could find one.

Shaker Museums—
The Story They Tell

A clothespin, a circular saw, a flat broom and cut nails have a common denominator — they were all inventions of the Shakers, a religious sect sometimes called the "Shaking Quakers." The several restorations of former Shaker settlements and the various museum collections of Shaker-made items are points of interest to consider when planning a trip.

There are two major village restorations — The Hancock Shaker Village at Hancock, Mass., on U.S. Route 20, five miles west of Pittsfield and Shakertown at Pleasant Hill, Kentucky, six miles south of Harrodsburg.

Near Chatham, N. Y., is the Shaker Museum said to be the oldest and largest in the world devoted exclusively to Shaker material. However, no Shaker buildings are found there. The extensive collections, which now have expanded to fill several buildings, were begun about 1935. Since 1950, the museum has been operated by the Shaker Museum Foundation, a corporation which now owns the land, buildings and collections.

The Shaker movement began in England and was a divergent group of Quakers. A small group came to America, and landed in New York on August 6, 1774. For a time they stayed in the city, but then several went on up the Hudson River in search of work.

Then came the decision to purchase a tract of land near Niskayuna, just eight miles north from the center of Albany. Later the settlement formed there took the name of Watervliet. After acquiring the land, the group came together again in the summer of 1776 and began the arduous routine of clearing the land and turning a wilderness tract into a livable, productive community.

After a number of years other "family" groups were started — New Lebanon, which became largest in the east, then others in Connecticut, Massachusetts, Maine and New Hampshire. Eventually there were settlements in other states including Ohio, Indiana and Kentucky. About 1784, the family groups began to organize into formal societies, the first being at New Lebanon in 1787.



The famous Round Stone Barn at Hancock Shaker Village near Pittsfield, Massachusetts, was rebuilt in 1864, after the original building burned.

Let's Go!

by Lois O'Connor

High Quality Products

As soon as a Shaker community was producing more than enough for its own needs, the surplus found a ready market, for any Shaker product from furniture to seeds to medicines bore the stamp of highest quality. Also, the list of their inventions is astonishing; some, such as the circular saw, were contrived by the Sisters. They held many patents on both agricultural and household appliances.

That the name of their first settlement was Niskayuna, an Indian term meaning "good maize land," may have been prophetic. Corn became an abundant crop and with the cultivation of some broom corn came the invention of the flat household broom as we know it today. This new-type broom became popular as evidenced by an ad in an Ithaca, New York, newspaper of May 19, 1847 — "Shaker Brooms by the Doz. or less quantity."

In 1790 a few surplus seeds were sold and from this impetus, the Shakers became the first to package seeds for marketing and developed a considerable industry. Soon to follow was the production and selling of dried herbs and herb products.

The story of the Shaker herb industry is a fascinating one. As demand grew for seeds, herbs, herbal medicines, brooms, etc., wagons began to carry these and other Shaker products further and further from home base. It was said that the Shaker seed wagon became as "familiar as the springtime."

Shakers were the first to employ direct seeding to establish a pine forest. In 1866 the first pine seeding was made near the Enfield, Conn., community. By 1880 some 100 acres had been put to this use.

Beautiful Furniture

Currently the Shakers probably are best known for the simple, beautiful design of the furniture that they made — designs that are being authentically reproduced now at the restored Shaker villages. Much has been written about their furniture, the most authoratative work being **Shaker Furniture** by Edward Deming Andrews and Faith Andrews.

A visit to one of the restored communities is a happy experience. There is such a variety of things to see, and one is constantly surprised by the Shakers' ingenuity and by the feeling of great dignity and austere charm surrounding all of their activities.

At Shakertown in Kentucky, guests may reserve lodging and enjoy meals prepared from Shaker recipes. Shaker women were excellent cooks. Here, too, the simple beauty of the sturdy architecture and the surrounding green meadows are soothing to frayed nerves.

An outstanding feature of Hancock Shaker Village in Massachusetts is the immense Round Stone Barn built in 1826 to accommodate 52 head of cattle and hay storage. It was then said to be the largest round barn in the world and the first in the United States. It was rebuilt in 1864 after a disastrous fire.

This village, like that of Shakertown, impresses a visitor with a sense of the quality and values inherent in the day-by-day living experienced by the Brothers and Sisters called Shakers. Let's Go!

When you eat outdoors...

Now that the wonderful season for outdoor meals is here again, we hope you'll find some of these ideas useful in making it easier and more fun to go on a picnic, or simply eat in the back yard at home.

If you like to go on spur-of-the-moment picnics, keep a box or basket packed with old silverware, plastic dishes, paper napkins and staples like, salt, pepper, sugar and non-dairy creamer. Then all you need to do is add the food and you're off!

Carry cakes to picnic spot in a box similar to ones bakers use; there's room at the top so frosting doesn't stick. Lacking one, sprinkle waxed paper with powered sugar before covering cake; the icing will stay on the cake and not on the paper.

If your picnic salad isn't too large, take it in the top of a double boiler and fill the bottom with chipped ice. Cubes are all right for a short distance, but they take up more room than smaller pieces. Be sure the salad remains in refrigerator until you are ready to leave. It will stay chilled for quite a while.

If you are going to have a cookout on your picnic which requires skillets or pans, rub bottoms of all utensils with laundry soap before leaving home. Smoke from the fire will wash off easily.

Take along a large plastic bag to put dirty dishes and pans in and keep them from any leftover food.

A damp locale need not spoil your fun. Soak a brick in kerosene for a day or two before the Big Day. It will burn for a long time and keep the fire burning even if firewood is damp.

Back Yard Meals

Hinge the kitchen screen at the side or top, so it will swing out and create an opening through which foods can be handed. Saves many steps when eating outside.

Put everyone's initials on glasses with bright red nail polish to save mix-ups when refills are made.

A large empty paint bucket, painted green and then decorated in an amusing way, makes an ideal bucket for charcoal; the handle makes it easy to carry.

Fasten standard bathroom-type glass holders to arms of chairs in your back yard or on the patio. These can be added to wooden or metal chairs with one bolt and save outdoor eaters from having to juggle glasses when holding a plate of food.

Louise Price Bell

AGAINST THE DARK

by Mildred Goff

Night's shadow deepens on the sea.
We pause a moment, looking down.
Below us blossom silently,
The lighted windows of the town.

We wish upon an early star
And linger on the hill to mark
How brave the lighted windows are
Against the ancient dark.

A rising wind begins to blow.
The night draws in. We shall return
And set our own small light to glow
Where other windows burn.

American Agriculturist, June, 1973

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GARDEN TALK

by George and Katy Abraham

Notes on Marihuana

Many AA readers unwittingly are growing marihuana (also spelled with a "j") on their premises. Others have weeds identified as marihuana which aren't. Two mistaken weeds are the giant ragweed (which has a different shaped leaf) and one called Cinquefoil, a much smaller plant with quarter-size yellow flowers.

Marihuana, in case you think it's growing in your back yard, begins growing about the same time as giant ragweed and grows at the same rate. It reaches the same height – 6 to 8 feet – but leaves on the two plants are different.

Marihuana plants may be either male or female. The male plants produce pollen, then wither and die, whereas the leafier female plants remain green until frost. Plants flower around July, and the females produce seed soon afterwards. The seed is mottled, gray and brownish, and shaped like a miniature clam shell.

Control: The key to fighting the growth of marihuana is to prevent seed production. This weed is so prolific that it's common to find a dense stand of marihuana producing more than 70,000 seeds per square meter. Eradication calls for conscientious control of all plants for several years. Weed killers such as 2,4-D are effective when plants are 1½ or 2 feet high.

Marihuana, also known as wild hemp, was introduced over a century ago, when many early pioneers raised it as a fiber crop. When the supply of Manila hemp was cut off during World War II, hemp was again raised in the Midwest for fiber. However, before the hemp factories got into full swing, nylon filled part of the need, the war ended, and commercial growing of hemp was no longer economical.

Home Grown Squash

Do some squash actually show tolerance to the squash vine borer? Indeed, they do. Butternut squash is tolerant or resistant to the vine borer. Cocozelle and zucchini, the ones having long, tapering fruit, get the borer. In fact, just about all squash can get the vine borer – hubbards, marrows, summer squash, pumpkins, gourds, cucumbers and even mushrooms – all are injured and in that order. Butternut, as a winter squash, does have the greatest amount of resistance to the borer.

Don't let this summer pass without raising some good squash. Squash dishes can be an excellent substitute for meat. Zucchini Elite is an extra early hybrid. Aristocrat, a 1973 All-America winner, starts to bear a few days after Zucchini Elite and deserves a place in your garden. Keep the vines dusted with methoxychlor, and you won't have any trouble with the borer.

Organic Gardening

Here's a spray made of herbs, used by our organic gardening friends, and we'd like to pass it along. This spray is harmless to plants and man and can be made right in your own kitchen. Try it and tell us how you like it.

Put through a grinder or blender 3 large onions, 1 whole garlic (not just the clove), 1 hot pepper pod or 2 tablespoons of cayenne pepper. Barely cover the mixture with water and let it stand overnight. Put through sieve in the morning and mash it through. Then strain through a dish towel.

Put the liquid into a gallon jug and fill jug with water. Now it's ready to pour into a hand sprayer. Be sure the sprayer has not been previously used for weed killers. Apply three times in one day for good results. Store in refrigerator.

Corseted Tomatoes

If you really want to outwit the slugs and snails, grow your tomatoes on wire corsets. Even commercial growers are thinking of growing their plants in wire cages or on corsets. The difficulty of getting skilled labor to train, prune, tie and stake tomatoes may make wire cages a coming thing for market production.

Home gardeners like caged tomatoes because they take less space and fruit ripens more uniformly than on staked or ground tomatoes, with less green shoulder and fewer sunscald defects. Yields of caged plants are as great as yields of mulched plants and those grown on cultivated soil. Tests show that you get 10 percent fewer cull fruit from caged plants than from staked, soil-grown or mulched plants.

The only variety of tomato we've found that isn't suited for caging is New Yorker; it doesn't grow upright, but rather tends to grow out through the sides. At least, that's been our experience in our corset tests. If you don't want to cage your vines, train them to grow up a wire trellis stretched between two posts.

AA Garden Clinic

A reader writes, "Last year our peppers had all bush and no fruit. I've been told for fruit set to plant peppers 4 inches apart so they touch one another. Is this true?"

Answer – No. Peppers are self-pollinating. There's no such thing as a "boy" or "girl" pepper plant.

MODERN JACK SPRATT

by Maurine Martin

He likes it boiled;
She prefers roasted.
He likes it plain;
She wants it toasted.
And yet they never
Argue or fight.
How do they do it?
EAT OUT every night!

Books for Northeast Living

We have arranged with the publishers to supply directly to our readers, postpaid, any of the following books at the prices listed. Please allow three weeks for delivery.

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We fly from New York to Bergen, home of many Viking kings, and have a full day there for sightseeing. We'll tour the old and new parts of the city and see the Hanseatic Museum and St. Mary's Church, oldest building in Bergen.

The next morning we board the MS Nordstjernen to begin our cruise northward through the islands and fjords of Norway's mainland coast, stopping at many villages and cities along the way. We go as far north as Honningsvaag, crossing the Arctic Circle en route.

Tentative shore excursions are planned at Trondheim, with a bus trip from Lodingen to Harstad and another to the North Cape where we'll visit a Lapp encampment along the way. There will also be an opportunity to shop for souvenirs at Harstad.

Leaving Honningsvaag, we veer away from the coast and across the Arctic Ocean, straight toward the North Pole and Spitzbergen Islands! A cluster of strange islands far north of the Arctic Circle, the landscape of Spitzbergen is incredible — great fjords leap up into an interior where one mountain rises always higher than another. Here gigantic glaciers roll their majestic way down into the valleys.

We spend three days sailing around these islands, making stops at Bjornoya, Isfjord Radio, Longyearben and Ny-Alesund in King's Bay which has a year-round population of 25! Longyearben is where the Norwegian governor lives, and we'll go ashore here. Nearby are three Russian mining settlements at Icefjord.

Our ship now turns south again, and we touch the coast of Norway at Tromso where there'll be a sightseeing tour and time for shopping. Retracing our route along the coast, we arrive back in Bergen early the morning of September 20.

On Our Way To Oslo

Immediately upon arrival in Bergen, we board a train for Voss and then take a short bus trip to Stalheim for an overnight stay at the beautifully situated Stalheim Hotel, overlooking the Naero Valley. Next morning we go by bus to Gudvangen and board a fjord steamer for the memorable cruise down the Sognefjord, "King of Fjords," to Flam.

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We glide smoothly into Oslo and

(Continued on page 28)

Gordon Conklin, Editor
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THE THIRTIETH ANNUAL (Open) N.Y. State Sheep Improvement Project Show & Sale, Saturday, July 28 at Cornell University. For entry blanks and other information, write Colleen FitzPatrick, Wayland, N.Y. 14572 or Jeanne (Chase) Kyle, 5837 E. Henrietta, Rush, N.Y. 14543.

TRYING TO IMPROVE your sheep flock? Come to the New England Sale, July 21, Eastern States Pavilion. Write to Don Grant, Box U40B, University of Conn., Storrs, Connecticut 06268.

OFFERING TWO PURE horned Dorset rams. Top quality breeding. Edgar Gould, Shelburne Falls, Mass. 01370.

WILD APPLE HILL FARM Ltd. - Registered Suffolk and Columbian sheep for sale at all times. Maureen Hess, RD #1, Hudson, N.Y. 12534. 518/672-7016.

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FOR RENT- new 200-cow free stall and parlor barn with 500 acres in Rochester milk market. 716/682-4407.

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FARMS—DAIRY, BEEF, sheep, cash crop, vineyard—all sizes. Business, cottages. J. R. Allen, Realtor, Dundee, N.Y. 607/292-3180.

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VIRGINIA LIVESTOCK, DAIRY farms, country estates and residential properties. Specific or ideal requirements needed for reply. No catalog. Browning Real Estate Agency, Box 112, Culpeper, Va. 22701.

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REGISTERED HOLSTEINS with 17,000 pound herd average, 126 head, 69 milkers, 25 bred heifers, excellent barn and machine shed, prime location on Lake Champlain, 170 tillable acres produces all feed, excellent line of machinery, beautiful 14 room Colonial home in perfect condition, complete for $181,000. 300 tillable acres, free-stall for 116, stanchion barn in good condition, 165 head, 12 cow parlor, two homes, full machinery, free-stall and parlor are new, $220,000. Excellent 78 stanchion barn with pipeline, 86 head, three silos, full machinery, six bedroom home, excellent location, 285 acres, $145,000. 165 tillable acres, 41 stanchions, 42 head, cleaner, silo, three bedroom home, machinery, $65,000. 264 acres, 90 tillable, 35 stanchions, new cleaner, silo, 49 head, excellent machinery mostly new, good river frontage and attractive three bedroom home for $77,000. 160 tillable, large tile drained meadows, extensive river frontage, 60 head, good 48 stanchion barn, two large silos, machinery, nice large home, $100,000. 150 acres, excellent river running through farm, 60 head, good barn, attractive home, prime location, full machinery, $100,000. 950 acres, 375 tillable, new 136 stanchions, 850 gallon bulk tank, two silos, 116 head, full machinery, private, $220,000. 260 acres, 87 stanchions, new silo, 86 head, large home, mobile home, machinery, $99,000. 478 acres, over 300 tillable, good barn, excellent home, 94 head, good machinery, buildings surrounded by pines, attractive, $137,000. Excellent bare farms available: 400 acres, over 200 tillable, very attractive land and setting, good trout brook, 60 stanchion barn, four bedroom home, $77,000. 240 tillable acres, 53 stanchion barn with bulk tank, cleaner, transfer station, 4 bedroom home, $60,000. More on hand. Contact Brisson Real Estate, RD 2, Massena, N.Y. 13662, 315-769-9387 or 315-764-0896.

1700 ACRE DAIRY FARM, store, milk processing plant, milk machines, trucks; 300 head Holsteins, milking 190, most registered. One of the biggest operations in New York. Includes all machinery, equipment and homes. Call or write Millard L. Brush, Realtor, Bath, New York 14810. Phone 607/776-6306 or 607/-962-3089.

FARMS FOR SALE

CENTRAL NEW YORK - 350A, 250 tillable, 2 creeks, Erie Canal, 3 miles city, State highway, 150 free stalls, Surge parlor. 1,000 gal. tank, two 24 x 60, one 20 x 60 silos with unloaders, automatic feeder, 2 houses, $135,000. Modern split level available. Owner - 315/-363-2347 - 315/437-9067.

SMALL FARM - over 50 acres. Close to heavy industrial area. Some woods. Reply to: Jay L. Welke, Box 54, Vestal, N.Y. 13850.

BROOME CO. DAIRY FARM - 290 acres, 10-room home, 51-stanchion barn, 70-tie stall barn, 3 silos. 150 acres tillable, stocked. $300,-000; bare $195,000. Elliott and Pomeroy, Inc., Brokers, Windsor, New York 13865. 607/655-1058.

WESTERN NEW YORK: Several free stall farms, all stocked and equipped with acreage as follows: 245 acres - 510 acres. Prices start at $150,000. Several of these farms ship over $100,000 worth of milk per year. Also, several conventional farms with tie stalls or stanchions, stocked and equipped (some bare) with acreage as follows: 158 acres - 475 acres. Prices start at $55,000, financing available. Call me first, Lester N. Fuller, Broker, Riceville Road, West Valley, N.Y. 14171. Phone 716/942-6636.

KING-SIZE BEEF RANCH on Lake Champlain! Quality 2,030-acre Vermont ranch with 3,200-ft. frontage on beautiful Lake Champlain! Also well suited for dairy operation, horses or dude ranch development. Several potential landing sites for small plane. 1,500 acres tillable, 500 in hay and corn last year, capacity for 700 cows, 26 miles of woven wire fence. Attractive 3-bedroom modern center chimney cape in very good repair. 3-bedroom bunkhouse. 160-ft. loose housing barn, 9-stall horse barn, several other barns, heated shop, 4 silos, several paddocks. 20 minutes to Interstate highway, ¾-hour ski area, 3½ hours Boston, 5 hours NYC. Rancher's lucky find at $660,000. Free . . . new 256-page Summer Catalog! Describes and pictures hundreds of farms, ranches, town and country homes, businesses coast to coast! Specify type property and location preferred. United Farm Agency, 501-AA Fifth Ave., New York, N.Y. 10017. Phone 212/687-2623.

MAINE FARM. 330 acres. Near Long Lake and Pleasant Mountain ski area. Formerly a dairy farm but qualified for beef or hobby farming. Features 100 acres cleared, 3 ponds, streams and exceptional mountain view. Includes two antique homes with original fireplaces (one with Dutch oven), modern plumbing and heating, all in excellent condition. Offered at $155,000.00. H. Earl Megquier, Farm Specialist, Lamb Agency, Realtors, 645 Forest Avenue, Portland, Maine 04101.

280 TILLABLE ACRES, Honeoye loam. New 100 cow free stall barn. Harvestore and 2 concrete silos. 2 good homes. Owner will help finance. A1-Co Properties, Main Street, Canandaigua, New York 14424. Phone 1-315/394-6495.

ARE YOU LOOKING for a farm? 211 acre New York State farm, 190 tillable, level land, no stone. 75 stanchion barn, 60 milkers, with equipment. Complete $150,000. $50,000 down, balance 20-yr. mortgage at 6% interest. Call Richard E. Posson, Lic. Real Estate Broker, R.D. #3, Norwich, N.Y. 13815, at 607/334-9727.

$100,000 WILL BUY your own kingdom. 146 acre farm. View, tar road, 8 room house, two full bathrooms, oil heat. Big barn with 40 head, silo, all necessary machinery, everything in excellent condition. 2 garages, sheds, henhouse, new sugar house with all equipment. Maple orchard for 1,000 buckets. Growing timber. By owner - Luis Pazmino, Colrain, Mass. 01340. Phone 413/337-5527.

WAYNE COUNTY DAIRY farm, 108 acres, two barns, silo, tool shed, large house with modern bath - $60,000.00 with terms. Dwight Winter 315/594-2345, Salesman, Brinkman Real Estate, Broker.

MAINE FARMS - Beef & poultry farm. Facilities for 70 head. Fully automated for 50,000 broilers. 2 remodeled farm homes - ideal for partnership. Financing available. Dairy farm, established natural milk business. 110A. Completely equipped. 60 head. 12 room home. Financing available. Carroll Perkins Real Estate, Lakeview Drive, So. China, Maine 04358. Phone 207/968-2780.

NEW YORK STATE - St. Lawrence County - 550 acre dairy farm, 300 tillage acres. 68 stanchion barn, cleaner, tank silo, granary machinery storage. 60 head of Holsteins. Hay, corn, machinery. 5 bedroom house. $100,000 complete or buy bare. Owner carry real estate mortgage. Chas. J. Graham Real Estate, Liverpool, N.Y. 13088. Phone 315/457-3380.

DAIRY FARM - Lewis County, N.Y. Fine crop land, State highway, 380 acres tillable, 80 acres woodland, 2 farmhouses, 95 free-stall barn, 92 stanchion barn, young stock barn, pipeline, 820 tank, 20 x 60 Harvestore. Taxes recently reduced. Price $105,000. Box 126, Castorland, N.Y. 13620. Telephone 315/-376-3330.

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FREE CATALOG. Our catalog descriptions are prepared to tell you the details we'd like to know if we were in your place. It has a wide selection of upstate New York and New England listings described in crisp, clear, complete terms, and includes almost anything you're likely to want. A few words about special needs, price, etc., may prove helpful. Four Effs, Box 264AA, Manchester, N.H. 03105. (Representatives wanted.)

OTSEGO COUNTY, N.Y. Good one-man 300 acre farm, 130 acres tillable, 51 stanchions, 14 x 45 silo, 670 gal. bulk tank, dumping station, 24 x 60 machinery shed, 44 milkers - 11 head of young stock, full line of equipment, good four bedroom house. Price $165,000 complete, $110,000 bare. Brandow Real Estate Corp., Stamford, N.Y. 12167. Phone 607/652-3193.

440 SUPER DAIRY FARM, 140 free stalls, 3 Harvestores, double-6 herring bone parlor. Located in heart of dairyland in Ohio. Price $425,000 bare. Will sell cattle, equipment. Call Shearer Auction and Realty Co. 419/289-1818, 312 Center St., Ashland, Ohio 44805.

BEEF CATTLE - A 540 acre farm with 450 tillable productive acres in the Albany, N.Y. area. Has 50 x 117 metal pole barn with two other barns. The concrete silos are 16 x 50, 20 x 50 and 24 x 65 with unloaders. Main house is a six-room ranch type home, twenty years old and there is also a two bedroom tenant house. Now used as a beef cattle farm it could easily be converted to large scale dairy operation. Priced at $200,000. Call Zar Benedict at (914) 343-1108 or write Barmann's Realty Sales, Inc. at R.D. #4, Middletown, N.Y. 10940.

SOUTHEASTERN, MASS. - 20 acres, 4 cleared. House built in 1725, center chimney, 3 fireplaces, bath, central heat, well, small barn. Located 38 miles from Boston, 18 miles from Cape Cod Canal. Population of 1,000. School bus at door. $78,000. Write Box 369-DS, Ithaca, N.Y. 14850.

366A DAIRY - 229 free stalls plus basement barn, 3 large Harvestores and 2 concrete silos, best of soil, prime location, 4 bedroom house and tenant house available - now only $325,-000.00. 460A dairy - 140 free stalls, year around silage storage, 2 houses - only $137,-500.00 - also cattle and equipment available at right price. 240A dairy - 84 free stalls plus 36 on new pipeline, 3 silos, heifer barn, two tool sheds, 8-room house and two new trailers, $147,500.00 bare - also available with 120 cows and excellent equipment. 165A cash crop and dairy - barn for 45, new 20 x 50 silo, good 4-bedroom house - only $82,500.00. 110A set-up for 280 veal calf - excellent operation, best of soil, 14-room house; owner's health forces sale - only $78,500.00. 140A Ontario loam soil - barn for 46, silo, extra good 6-bedroom house, tenant house - only $42,500.00. Samples - try us. Also cash crop farms, 50 to 1,000A. Write giving phone number to Mal-Tut Real Estate, 9 Court St., Auburn, N.Y. 13021. Phone 315/253-3813.

EDGE OF TOWN - A well located farm near N.Y.S. Thruway in Herkimer County. Has 318 acres with 150 tillable. Barn has tie stalls for 75 cows with bulk tank, barn cleaner, mow elevator and two silo unloaders. Has 24 x 60 and 20 x 50 silos. 5 bedroom house with hot water 3 zone heating system was built 5 years ago plus comfortable ten room house with new furnace. Priced at $130,000 bare or $198,000 with 90 Holsteins and full line of farm machinery. Call Zar Benedict at 914/-343-1108 or write Barmann's Realty Sales, Inc. at R.D. #4, Middletown, New York 10940.

NEW YORK STATE - Madison County dairy farm - 200 acres, modern barn, milk house, big silo. 70 head of Holsteins, all stages. Hay, corn, machinery. Lovely large home. Long-time owner retiring. Buy bare or equipped. Chas. J. Graham Real Estate, Liverpool, N.Y. 13088. Phone 315/457-3380.

VIRGINIA: 450 acre dairy farm. 22 stanchion milking barn with pipeline and bulk tank. 4 silos, 3 ponds, 3 houses, strong stream. 200 acres tillable. Excellent owner financing at 6%. Asking $650.00 per acre. Midway Realty, Rapidan, Va. 22733. Phone 703/825-1006 (Culpeper County).

CAYUGA CO. FARMS - 215 acre crop farm, 145 tillable, Honeoye soils, $55,000. 200 acres, 160 tillable, Southern Cayuga Co., 45-cow dairy barn, 4-bedroom house, $82,500. Exchange your farm for this mobile home park. Excellent retirement situation with a 4-bedroom, two-bath home for owner and a steady monthly income. An unusual park with trees and stream. $75,000. Call or write Ralph Real Estate, 147 Genesee St., Auburn, N.Y. 13021. 315/253-6278.

FARMS WANTED

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FARMS WANTED

BUYERS WAITING! For good dairy farms within 250 miles of New York City. Bare or stocked. We can finance. Also, interested in recreation land, timber or development land. Make your offer now! Our company also buys direct. Barmann's Realty Sales, Inc., R. D. #4, Middletown, New York. Phone 914-343-1108.

WANTED ALL KINDS OF FARMS, vacant land and timber lots. New York and Pennsylvania locations. W. W. Werts, Real Estate, Johnson City, New York 13790.

QUALIFIED BUYERS WAITING - dairy farms, others. Wimple, Realtors, Sloansville, N.Y. 12160. 518/875-6355.

WANTED: FARMS, ACREAGE in New England. Top price paid. Send details, price: H. Brower, 20 Wachusett Road, Chestnut Hill, Mass. 02167. Phone 617/969-3461.

WE NEED ALL type farms. We specialize in farm sales and have waiting buyers! Call Richard E. Posson Real Estate, RD #3, Norwich, N.Y. 13815. 607/334-9727.

WE HAVE ANXIOUS buyers for good dairy farms or farm suitable to raise horses in Montgomery, Fulton or Saratoga counties. For trained farm sellers write Sacandaga Realty Co., R.D. #4, Amsterdam, N.Y. 12010.

BROTHERS DESIRE Central N.Y.S. freestall farm. Hebbard, Delhi Stage, Oneonta, N.Y. 13820.

YOUNG FARMER wants to buy large dairy farm in New York State through owner. Would prefer farm stock and equipped. Write Box 369-DW, Ithaca, N.Y. 14850 or phone 607/363-7280.

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GREENHOUSE - 8' x 12'. Build yourself for less than $50.00. 5 different plans - $2.00. Werth's, Box 1902GC, Cedar Rapids, Iowa 52406.

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STRAW AND ALL grades of hay delivered subject to inspection. For more information call person-to-person after 6:00 PM 518/994-1144. Christman's Exchange, Inc., RD2, Fort Plain, N.Y. 13339.

QUALITY GRADED HAY & Straw, all kinds shipped or trucked anywhere. Desmond Hay Service, Box #666, Spring Lake, N.J. Tel. (201) 449-1888.

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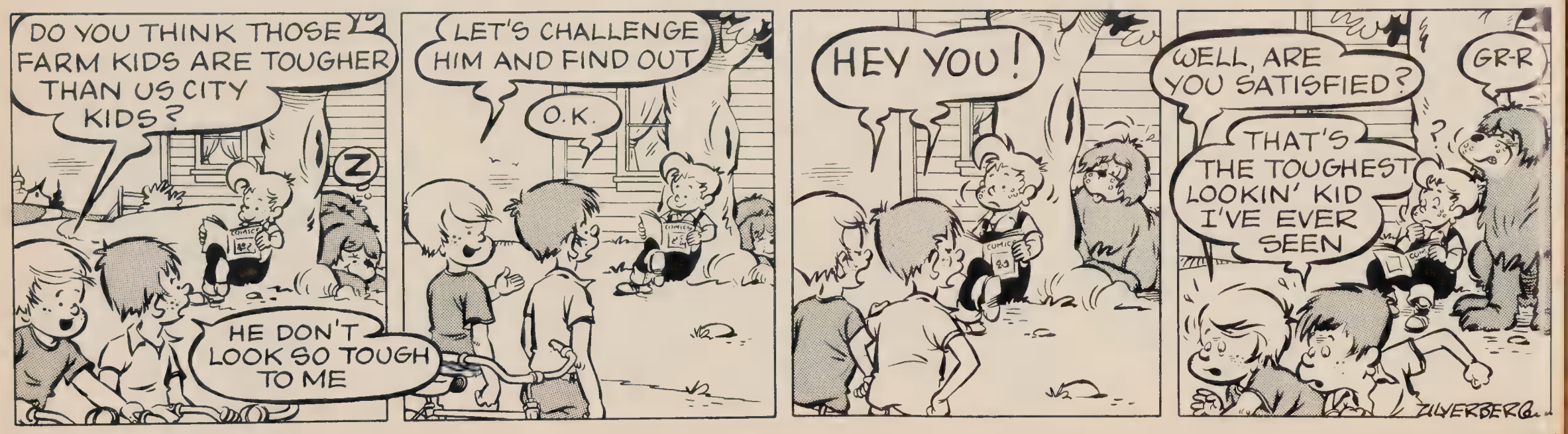
HELP WANTED

PROFESSIONAL A.I. TECHNICIAN—Eastern is looking for qualified men who want a challenging agricultural career providing an important and needed service to dairymen in the Northeast. The job offers working out-of-doors with farm people, above average income, liberal benefits, and transportation. Write or call: Eastern A.I. Coop., Inc., Box 518, Ithaca, New York 14850. Phone (607) 272-3660.

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WANTED - MIDDLE-AGED COUPLE as caretaker for small country estate. Man must be knowledgeable about horses and it is desirable but not essential that wife do part-time housecleaning. Own cottage, all utilities paid, plus salary based on capabilities. Call 802/457-1183 or write Mrs. George O. Clark, South Woodstock, Vermont 05071.

THE TILLERS



HELP WANTED

MAN WITH MECHANICAL ability for WNY poultry farm. Two bedroom house available. Write Box 369-DP, Ithaca, N.Y. 14850, stating age, experience, qualifications.

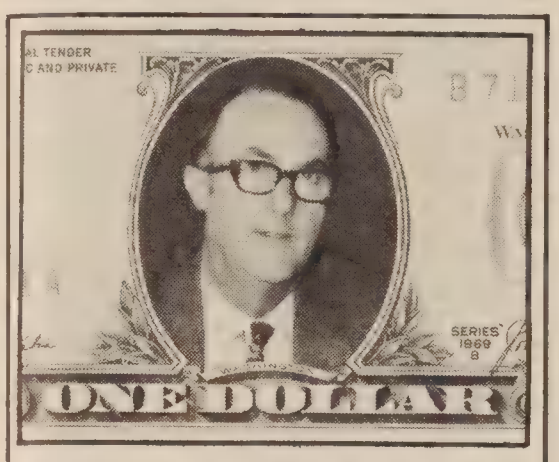
RETIRED GENTLEMAN wishes companion to share country home, any age. Driver's license required. Write Box 229B, Glen Gardner, N.J. 08826.

SINGLE MAN to work on vegetable farm. Must have driver's license and tractor experience. John DeWolf, Colliers Mills Rd., New Egypt, N.J. 08533.

YOUNG MARRIED MAN for operator-manager 200 acre crop, livestock farm near Rochester. Family farm background, ag. school, nonsmoker. Complete responsibility, must be able to keep records, prepare cash flow projections. Salary plus incentive. New apartment. Opportunity to build equity after suitable trial period. Start Sept. 1. Furnish background and references first letter. Box 369-DT, Ithaca, N.Y. 14850.

PRIVATE VERMONT HOME Position open for middle-aged or younger couple; man to do general outside work, wife with housekeeping and cooking experience. Completely modernized country place. Two adults. Springfield, Vermont area. Live in separate nearby modernized house charming location with commanding view. ($300 mo. rental value.) Position permanent. References. Salaries commensurate with qualifications. Write fully about yourselves and monthly salaries expected to P.O. Box 649, Springfield, Vermont 05156.

CIRCLE HEAD RIG SAWYER, experienced with hardwoods, electric push button carriage, Salem Feed and vertical edger; also mill hands for debarker and bucking with chain saw. Donatoni Brothers, Inc., 199 W. Main St., Rockaway, N.J. 07866. Call collect at 201/-627-2550.



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Box 100, Ithaca, N.Y. 14850

HONEY

EXTRACTED NATURAL HONEY - clover, fallflower or buckwheat. 5 lbs. $4.00; three 5's $11.00; six 5's $19.00. Postpaid to 3rd zone. We use stainless steel extractors and tanks. Lang Apiaries, 8448 N.Y. Rt. 77, Gasport, N.Y. 14067.

LAND WANTED

WANTED - LAND for campsite. State location and price. Box 161, Middlefield, Conn. 06455.

MERCHANDISE

SHOP BY MAIL for the famous Rawleigh Products known for its guaranteed high quality products. Free catalog and many specials. James H. Kerr Associates, P.O. Box 34, Peru, Maine 04272.

MISCELLANEOUS

COUNTRY STORE CATALOG. 35¢. Bargains galore! Foxes-AG, Box 914, Memphis, Tenn. 38101.

STOP RUSTY WATER from ruining wash, staining fixtures. Proven filter keeps water free from rust, sand, odors, tastes, other impurities. Low cost, reusable replacements. 30 day trial offer. Write Samcor, 836-Q West 79th, Minneapolis, Minn. 55420.

STOP CESSPOOL TROUBLES without pumping. Pumping or emptying a cesspool or septic tank is not actually cleaning it as your filter bed is clogged or the system would not be full. Our cleaner, Sursolvent, dissolves the solids and eats out the muck and slime crustations on the side walls, thereby releasing the water, correcting the fault which caused the system to finally fail. No pumping necessary. Users report years of satisfactory results. Free descriptive literature and prices. Electric Sewer Cleaning Co., Dept. AA, Allston, Mass. 02134.

WATCH AND CLOCK repairing books and tools. Free catalog. North American, Box 77RS, Fox River Grove, Illinois 60021.

QUICK-JOHN—Cleans septic tanks, cesspools, outdoor toilets. Stops odors, backups. Opens drains. 6 premeasured treatments $3.55, 12—$6.40 ppd. Money Back Guarantee. Ryter Co., Madelia 20, Minn.

WINEMAKERS - FREE CATALOG: Fruit & Grape Concentrates, Yeasts, etc. Write: Kraus, Box 451-AA, Nevada, Missouri 64772.

PRICING/SELLING HANDBOOKS - 10,000 Antiques, $1.00: 3,000 Bottles, $3.95; 1500 Fruit Jars $1.95. Detailed pictures/illustrations. All 3 books, $4.95 postpaid. Guaranteed. Harvest Publishers, Box 3015-LC, Milwaukee, Wisc. 53218.

"PIONEER FOLK MEDICINE". Folk-Cures for acne, arthritis, asthma, overweight, tired blood, wrinkles, cramps, falling hair, freckles, bedwetting, bladder, constipation, many others. Send $1.00. Frontier Shop, Box 9832W, Fort Worth, Texas 76107.

MISCELLANEOUS

35 STAINLESS STEEL double-edge blades, guaranteed for 10 shaves or more. $2.00. Pierpont Mart, P.O. Box 221, Fairhaven Sta., New Haven, Conn. 06513. Free trial blade.

PARTS FOR STOVES, furnaces, coal, oil, gas, electric; chimney covers, screens and caps; Imp Soot Destroyer. Empire Stove Co., 793 Broadway, Albany, N.Y. 12207.

SILO REPAIRS: Save your silo - old or new, years added. We sandblast and reline silos. Silo Services Inc., Little Falls, N.Y. 13365.

LEG SORE SUFFERERS — Send for Free Book on proven Viscose for relief of pain and aches of leg ulcers, swelling, itch, rash due to deep vein congestion. Works as you walk. Viscose Co., 100 West Chicago Avenue, Dept. J.A., Chicago, Illinois 60610.

NEW & USED EQUIPMENT

WANTED: ALLIS-CHALMERS roto balers. Write Brice Cree y, Andover, Ohio 44003.

AUTOMATED GRAIN DRYING and handling systems, bucket elevators, grain storage bins. For professional help in picking the right size, style for your needs call 716/532-4016. Charles Van Etten, Gowanda, N.Y. 14070.

SPLIT GIANT ROCKS economically! Terrific 2000 degree kerosene torch, 99 practical uses. Destroys stumps, sprays, dries concrete. 800,-000 users. Free literature. Sine, NY3, Quakertown, Pa. 18951.

"USED CONVEYOR BELTING" Rubber covered—like new, all sizes—all plys. Phone or write: E. L. Ashmus Belting Company, 6038-49th Ave., Kenosha, Wisconsin. Telephone 652-4596.

MILK TANKS - we sell, buy, lease - new or used, Modern Dairy Equipment, Inc., Box 125, Arcade, N.Y. 14009. Phone 716/492-1693.

WORTHINGTON TRACTOR SALVAGE has guaranteed used parts at lowest prices. Three warehouses of parts for your every need. All makes and models. One of America's largest inventories. Dealers welcome. Write us: Route 4, Worthington, Minnesota 56187; Phone 507/-372-2911.

HOE BETWEEN PLANTS and rows . . . no more back breaking labor, self-propelled hoeing machine; depth adjustable; thousands in use; year warranty. Factory discount; month trial; time payments. Free literature. Auto Hoe, Inc., De Pere 9, Wisconsin 54115.

LAMINATED RAFTERS & ARCHES for all farm purposes. Kiln-dried lumber. Waterproof glue. Popular sizes stocked 12′ to 80′ and wider. Box S-63, Unadilla Silo Co., Unadilla, N.Y. 13849.

NEW FORD 7000 diesel, fully equipped with safety roll bar cab, $8,385.00. New Ford 5000 diesel 8-speed, $5,995.00; new International 574 diesel, fully equipped with safety roll bar, large tires, $5,410.00; new David Brown 990, 12-speed, large tires, hyd. valve, power steering, $4,899.00; new John Deere 3120 diesel, 85 HP, 6 cyl. 12-speed HiLo trans., 16.9 x 34 6-ply, $7,285.00. Late model used tractors - Ford 5000 diesel, $3,995.00 to $5,785.00. 18 in stock, all low-hour tractors; MF 178 diesel multi power, $4,985.00; John Deere 4020, $4,-985.00; J.D. 730 diesel, $2,985.00; IHC 806, $4,485.00; 656, $4,250.00; Case 830, $4,285.00; Oliver 1850, $4,685.00; 2 Melroe Bobcats with front loaders, gas and diesel, $3,775.00 - $3,-885.00; 560 IHC, $2,485.00; A.C. 170 with loader, like new, actual 259 hours, $4,995.00; Ford 3000 diesel, $2,885.00; A.C. D-15 gas, $2,485.00; 3 Farmall M, $785.00 - $985.00; Super MTA, $1,685.00; Farmall 300, $1,285.00; AC-WD-45, $985.00. Many more good used tractors to choose from. Write for lists. Dick Brady Farm Tractor Sales Inc., P.O. Box AA, Fairview (Erie Co.), Pa. 16415. 814/474-5811.

SALE ON TRUCK EQUIPMENT - 25% off on following items: 14′ bulk grain body with double opening rear doors; heavy duty 24′ platform bodies: 9½′ grain body; pick-up hoist for 1972 and earlier models; Morrison 96″ pick-up tool boxes. R. P. Riester, Inc., Truck Equipment Distributor, Sand Beach Rd., Auburn, N.Y. 13021. 315/253-5732.

BAKER WINDMILLS - for information please send large stamped envelope: E. A. Larter, Main Street, Dunstable, Mass. 01827.

PARTS BY THE THOUSANDS: Dismantling Cat. D2 thru D8; 933, 955, 977; HD5 thru HD21, Int. TD6 thru TD25; Oliver, J.D., Case final drives. Engines - good, used. For sale, cheap: good used crawlers, loaders, backhoes. New and used tracks, rollers, idlers, sprockets. Up to 30% off on new undercarriages. "If not listed, ask for it!" Wanted: Used crawlers and loaders. Track rebuilding service. Ben Lombardo Equipment Co., RD 6, Sinking Spring, Reading, Pa. 19608. 215/678-1999 or 215/944-7171.

IRRIGATION SYSTEM 1700 (plus) feet 5-inch aluminum pipe, 2 nozzles each cover 250 ft. swath, fittings, etc. Chrysler industrial engine, Hale pump 6-inch suction line, custom made rig for carrying pipe and fittings, used only one year. $3,500.00. Want to buy: Attachments for Cub Lowboy Tractor, also Ford or MF Tractor with front end loader. Norman Kellar, 610 Route 32 North, New Paltz, New York 12561. Phone 914/331-8900 or 914/255-1740.

RIDING LAWNMOWERS - new, 7 horsepower $189.00. Freight paid. Free brochure: Tomco, P.O. Box 72, Oak Grove, Missouri 64075.

WANTED - 1-row potato digger, power takeoff type, on rubber. M. A. Jordan, 28 Cedar St., Foxboro, Mass. 02035. Phone 1-617/543-2714.

FOR SALE: Get rid of those wet spots. Good used Killifer subsoiler for sale. E. Earl Harding, R. 1, Albion, N.Y. 14411.

NEW APPLE BAGGING Machine; Bean 40D speed sprayer; OC4 International tractor; 2 farm flat trailers - load 110 apple crates flat; one 3′ Niagara apple grader with washer, dryer; two 60′ 2-way belts; box conveyors; apple skids; apple 20 bushel bins, boxes; picking buckets; ladders. Phone 914/883-6639.

1967 DAHLMAN TM potato harvester; 1970 Haines bulk loader, sizer; McConnell clodbusters; FMC rotary tilther. Numerous other potato equipment, all in excellent condition. Phone 412/927-2470.

LICKITY BRUSH CHIPPERS in stock. Mabie Bros., Inc., Kinderhook Rd., Kirkville, N.Y. 13082. 315/687-8791.

NEW & USED EQUIPMENT

ALL KINDS OF poultry equipment for sale, due to retirement. O. Cushner, 1348 S. Main Rd., Vineland, N.J. 08360. 609/692-7388.

ASHLEY THERMOSTATIC wood burning circulators. Complete stock at Harkey's Equipment Company, Mont Vernon, New Hampshire 03057. Phone 603/673-3700.

7 - 9 - 12 FT. HAYBINES - 3 new Owatonna 28 SP $3295.00. 30 reconditioned balers, $395.-00 up. New Oliver 1555, 1650, 1750, 1755, 1855 tractors. Bargain prices. New 975 New Holland SP with used 3-row narrow head, bargain. 30 acres equipment. New Long 45 HP diesels $3795.00. Fully equipped, delivered. 4-wheel drive $4500. Kubota 175, 210 and 260 on Turf Tires. Tractors with hyd. highway mowers. Don Howard, Canandaigua, N.Y. 14424.

FOR SALE: 2 Chisholm Ryder Bean Harvesters, 1968 - in good condition. Also International Gas 706 with 4-bottom plow 16″ - in good condition. Feltz Bros. Farms Inc., North Collins, N.Y. 14111. Phone 716/337-2761.

NEW HOLLAND STACKLINER, Model No. 1010, used one year, just like new. Phone Stamford, N.Y. 607/652-4873.

FOR SALE: KUHL 16 case egg washer candler; Eggomatic grader. Complete eggroom equipment. Bernard Richardson, Marion, New York 14505. 315/589-2496.

FOR SALE: 20 ft. Cardinal Jr. belt type elevator with motor. Also mechanical transplanter. E. Earl Harding, R. 1, Albion, N.Y. 14411.

SELF-PROPELLED orchard lift - Mark II Girette w/hyd. pruner - $2500.00. Goshen, N.Y. 914/294-5794.

FOR SALE - 2 Allis-Chalmers roto-balers. Herbert Bahre, Canton, Conn. 06019. 1-203/-693-8187.

WELL DRILLING

Save 75% by drilling your own water well this new, easy way! Complete information $1.00 ppd.

DEEPROCK MFG. COMPANY
OPELIKA, ALABAMA 36801

NURSERY STOCK

FREE CATALOG write Tennessee Nursery & Seed Co., Box 645, Dept. 91C, Cleveland, Tenn. 37311.

1,000 NURSERY ITEMS - Trees (fruits, ornamentals), shrubs, evergreens (seeds, seedlings), grafts, many unusual plants. Propagation supplies, tools, pots, horticultural books. Mellinger's, North Lima, Ohio 44452.

PESTICIDES

DUOCIDE. THE SURE-FIRE rat killer. Powerful anticoagulant poison in easy-to-use toss packets. Stays fresh. Used as directed, safe around pets, livestock. Sold only at Agway.

PLASTIC NETTING

GROW FRUITS AND VEGETABLES for yourself—not for the birds! Cover trees or plants with lightweight new strong Zendel plastic netting. Economical, long-lasting protection. Lets in air, rain and sunshine. ⅞″ mesh, 20′ x 20′. Fred H. Howe, Box 267, Somerville, New Jersey 08876.

REAL ESTATE

VIRGINIA'S EASTERN SHORE - farms, water front, acreage, homes, retirement places. Free list. John B. West, Broker, Nelsonia, Virginia 23414.

VIRGINIA FARMS, HOMES, Commercial for sale. Ralph Fowler Real Estate, P.O. Box 361, Madison, Virginia 22727. Phone 703/948-4143, office-home.

FREE CATALOG! Giant Summer edition! Over 5,200 properties described, pictured - land, farms, homes, businesses - recreation, retirement. Selected best thruout the U.S.! 73 years' service, over 660 offices, 41 states coast to coast. Mailed free from the world's largest! Strout Realty, Inc., 60-RT E. 42nd St., New York, N.Y. 10017.

FOR SALE - 337 acres Central New York, $350 per acre. Near lakes. Phone 607/749-3610. Harold Brown, RFD #1, Homer, N.Y. 13077.

REAL ESTATE WANTED

WANTED—FARMS, ACREAGE, village and country homes, all other types of real estate and business opportunities. New York and Pennsylvania. W. W. Werts Real Estate, Johnson City, New York.

SELL YOUR FARM, ranch, acreage direct to buyers through Land Market-Place, Box 132-AM, Brownsdale, Minn. 55918. No sales commission. Write for details.

RECORDS

COUNTRY RECORDS - and tape cartridges. Jimmy Rodgers, Carter Family, Curly Fox, Bill Monroe. Fiddle tunes. Free circular. Uncle Jim O'Neal, Box A-32, Arcadia, Calif. 91006.

45'S BY MAIL. 85¢. Postpaid. Free record with purchase! Latest Country, Rock, Popular, Oldies. Free Catalog! Write: MOS, Box 788AA33, Anaheim, Calif. 92805.

SALESMEN WANTED

SELL ANIMAL HEALTH Supplies for area's fastest growing wholesale distributor. Prime territories available. Guaranteed salary plus commission. Animal Medic, Inc., P.O. Box 575, Manchester, Pa. 17345.

SEEDS

SEED DEALERS - Here is a natural for additional income. Sell Famous Nursette Automatic Calf Feeders to your customers. Write Box 68A, Shickshinny, Pa. 18655.

CHEMUNG CROWNVETCH. Permanent bank stabilizer, soil rejuvenator. Pasture legume. Game cover. Pound crownvetch, pound fescue, inoculant, informational bulletin $4.95. 100 heavy crowns $15.00. 50 lb. certified Chemung $75.00. Joe Beebe, Towanda, Pa. 18848.

SAWDUST & SHAVINGS

SAWDUST AND SHAVINGS in carload lots. Also Kiln dried soft wood in compressed bales. Compressed bales in paper bags, delivered in truck loads or car loads. Bono Sawdust Co., 33-30 127 Place, Corona 68, New York. Telephone HI-6-1374.

SHELLED NUTS & SPICES

WALNUTS, PECANS, Black Walnuts, Cashews, Brazils $2.85 pound. Postpaid. Peerless, 538A Centralpark, Chicago 60624.

SIGNS

NO HUNTING SIGNS, Mailbox — Lawn Markers, Farm Signs, Special Signs, Printing all kinds. Sample catalog. Signs, 54 Hamilton, Auburn, New York 13021 Dept. G.

ALUMINUM "POSTED" SIGNS, 24 styles. Permanent, inexpensive. Free sample. John Voss, 70AA Farley Lane. Manlius, New York 1310[illegible].

SILOS

SILOS—Factory Creosote Treated Wood. Less frozen ensilage and absolute acid resistance. Dependable lock dowelled, wind-resistant construction. Immediate delivery. Box BS-63, Unadilla Silo Co., Unadilla, N.Y. 13849.

SITUATIONS WANTED

ELDERLY MAN (retired farmer) would like position with elderly person or couple. Can help with outdoor and house chores. Country environment more important than salary. Telephone: Philadelphia 1-215/HO-8-5695 before noon or evenings.

YOUNG COUPLE wants farm to manage or operate with retiring dairyman, with possible option to buy; lifetime experience. Write Rick Duell, General Delivery, Oxford, N.Y. 13830.

AGRICULTURAL and heavy equipment mechanic, married, 43, fully qualified, wide experience many parts of the world, returning United States September-October, requires permanent position, preferably with accommodation. Any location. Please reply: BM Vintalvist, London, WC1V, 6XX, England.

MARRIED MAN, no children, wants job as gardener-caretaker on a very small estate in New York State. Write to Tempest C. Zinn, RD #1, Stewartsville, New Jersey 08886.

LIGHT HOUSEKEEPING POSITION, elderly person or couple. Preference country - by older woman. Box 369-DV, Ithaca, N.Y. 14850.

1973 GRADUATE Iowa State University, B.S. Animal Science - small farm background. Interested in livestock management, production or herdsman. Resumé sent upon request. Rodney Wells, 48 Cross Road, Shelton, Connecticut 00484. Phone 203/929-3846.

LADY DESIRES POSITION as housekeeper-companion for one nice elderly gentleman. Write Box 369-DR, Ithaca, N.Y. 14850.

SPARROW TRAPS

SPARROWS EAT PROFITS! Get new, improved trap. Guaranteed satisfaction. Free particulars. Roy Vail, Antwerp 10, Ohio 45813.

STAMPS & COINS

LARGE CENT, 2¢ or 3¢ piece $2.95 each. Coin Catalog 25¢. Edel's, Carlyle, Illinois 62231.

TOBACCO

"TOBACCO"! Sweet Chewing or pipe smoking 3½ pounds $3.00. Postpaid. Guaranteed. Fred Stoker, Dresden, Tennessee 38225.

TOURS

YOUR group want an especially arranged tour or cruise? The experts who have handled American Agriculturist tours for a quarter century will make all arrangements for groups—whether it's around the world by jet, or air-conditioned bus to the Gaspe. Write: Tours, Box 370, Ithaca, New York 14850 and tell us where in the world you want to go—and when, how long, and how many!

TRACTOR PARTS

TRACTOR PARTS: Save up to 75% on new-used-rebuilt parts, for all makes - models, crawler wheel types. Send list of parts required for price quotation. Surplus Tractor Parts Corporation, 3215 W. Main Ave., Fargo, North Dakota 58102. Phone 701/235-7503.

TRAVEL

ONE OF OUR most popular services to readers is sponsoring and arranging tours and cruises. They are popular because the worries about foreign customs, handling baggage, value of foreign money, language barriers, tickets, reservations, etc., can be forgotten. Trained, experienced escorts take care of everything for you—even tipping. For details on our future tours, write American Agriculturist Tours, Box 370, Ithaca, N.Y. 14850.

WANTED TO BUY

WANTED: SHOW CATTLE BLANKETS, halters, etc. James Ellis, RR #3, Cattaraugus, New York 14719.

WOMENS INTEREST

COLDWATER DILL PICKLES! Can in minutes! No hot brine. Delicious, crisp. Factory secrets! Recipe $1.00. Hamiltons, Box 233-56, New Ulm, Minn. 56073.

CRAFT SUPPLIES, pearls, miniatures. Discount catalog 25¢. Flocraft, Box A, Farrell, Pa. 16121.

MINIATURES, seashells, beads, novelties, jewelry. Idea, discount catalog 25¢. Artcrafts, Box 1386, Santa Barbara, Calif. .93102.

LEARN TO READ MUSIC in one evening. Free Brochure Music Aids, BI17B, Arkansaw, Wisc. 54721.

EASY MONEY with Knight and Castle pen holder. Sells on sight. Sample and details $1.50. Vicree, Box 279A, RD #1, Howell, N.J. 07727.

CUSTOM SPOONS for church, organizational and centennial fund raising. Write Corwill International, Dept. A, P.O. Box 4830, Cedar Rapids, Iowa 52407.

WOOL

WOOL - HIGHEST PRICES paid for wool. Exchange for blankets, batts, etc. Free list. West Earl Woolen Mill, R. #2, Ephrata, Pa. 17522.

Eighteen-year-old Melodee Sue LeVan of Milton, Pennsylvania, was named winner of the girl's division of the 1973 National Holstein Distinguished Junior Member Contest. Another northeasterner, Linda Keene, 17, of Auburn, Maine, was one of the four finalists in the contest.



Melodee Sue LeVan



Linda Keene



There are only seven custom applicators of Sprout Nip in the country . . . one of them is Fred Reeve (left) of Riverhead, New York. Sprout Nip is a chemical inhibitor of sprouting in potatoes.

George DiGiuseppe, plant superintendent for Vincent Potato Chip Company, Salem, Massachusetts, holds treated spuds and compares them with sprouting (and untreated) potatoes held by Reeve.

Fair . . . . .

(Continued from page 20)

Champlain Valley Exposition, Essex Junction	Aug. 27—Sept. 1
Vermont State Fair, Rutland	Sept. 2—8
Guilford Fair	Sept. 3
World's Fair, Tunbridge	Sept. 13—16
Bondville Fair	Sept. 22—23
Vermont Farm Show, Barre	Jan. 29—31, 1974

RHODE ISLAND

Newport County 4-H Old-Fashioned Country Fair, Portsmouth	June 16—17
Foster Country Fair	July 26—28
Southern Rhode Island 4-H Fair, East Greenwich	July 28—29
Washington County Pomona Grange Fair, Richmond	Aug. 15—19
Rocky Hill "State" Fair, East Greenwich	Aug. 21—26
South County Poultry Show, Westerly	Nov. 25

Vacation . . . . .

(Continued from page 24)

check in at Hotel Bristol, our home for three nights. Some of the things we'll see in Oslo are Parliament, the University and Cathedral, Royal Castle, Munsch Museum, Vigeland Sculpture Park, Norwegian Folk Museum, the renowned Viking Ship Museum, Polar Ship Fram, and the original Kon-Tiki balsa raft. Museums in Oslo are truly unique and quite different from the humdrum ones found in so many places.

A Word About Our Ship

Informality is the way of life on our cruise ship, the Nordstjernen. This is one of the ships which constantly steams the length of the Norwegian coast, carrying mail, cargo, and passengers. It is quite different and far more fascinating than a conventional cruise ship. Yet deck space is ample, the comfortably furnished lounges provide places for pleasant relaxation, and always excellent meals are served in the dining room.

Like all AMERICAN AGRICULTURIST — Travel Service Bureau vacations, this trip will be fully escorted, and everything is included when you buy your ticket — all meals, transportation, baggage handling, and admission charges to all places visited. We feel the trip will be quite popular, and we urge you to make your reservation soon, since space is definitely limited.

Space Still Available

Time is getting very short, but if you act at once, it is still possible to join our **Virginia, Great Smokies, Carolinas Tour** from **June 23 to July 9.** A few highlights of this trip are Luray Caverns, the Skyline Drive, Natural Bridge, Biltmore House and Gardens. Charleston, the Outer Banks, Williamsburg and Washington.

This year's popular **Heart o' the West Holiday** is scheduled for **July 28 to August 18.** Here, again, it's impossible to tell you all the places we will visit. Included are Mount Rushmore, Devil's Tower, Yellowstone and Grand Teton National Parks, Salt Lake City, Bryce Canyon, Grand Canyon, the Royal Gorge, Colorado Springs and Pikes Peak. Make your reservation soon, so you won't be disappointed in finding the trip sold out.

AGWAY FARM ENTERPRISE SERVICE



That was the all-important question last fall. Few were able to dry all their crop or to store it in air-sealed silos. The capacity just wasn't there.

Yet many found a third alternative—ChemStor.

High-moisture grain treated with ChemStor can be stored almost any place, provided it is protected from additional moisture. It stays fresh and palatable.

Farmers who applied ChemStor last fall report excellent results. In fact, they say it actually enhances palatability. The silage-like aroma attracts the animals, keeping them on feed during ration changes. And since it contains the same organic acids that occur naturally in the rumen, it cannot diminish or alter nutritive value.

ChemStor offers new flexibility. The extra 2 to 4 weeks gained by early harvesting leaves you more time for fall work, and could save your crop from bad weather.

And there's no more drying delay. High-moisture or not, your grain can go directly to where you store and feed it. Grain can be moved and stored to suit your convenience. Even if you have an air-sealed silo, you can increase its use by refilling at midyear with your ChemStor-treated grain from storage.

If you want to save a crop like last year's, or want to expand and improve your operation, look at ChemStor.

Talk it over with your Agway Enterprise Salesman.

READER SERVICE



READER SERVICE CLAIMS SETTLED

NEW YORK

Mr. R. J. Shafer, Cuba $55.37
(refunds on orders)
Mrs. Albert Benedict, Turin 7.62
(refund on dress)
Mr. Alton Wrisley, Willsboro 17.77
(sales tax refund)
Mrs. Maud Looker, Oswego 30.00
(refund on subscriptions)

PENNSYLVANIA

Mr. Emerson Eimer, Roulette 4.48
(refund on merchandise)
Mrs. F. E. Salansky, Uniondale 37.45
(refund on order)

MAINE

Mrs. Verna Farnsworth, Auburn 7.90
(incorrect charge cancelled)
Mr. Walter Seredy, Farmington 75.07
(refund on order)

NEW HAMPSHIRE

Mr. Joseph Boynton, Raymond 30.57
(refund on orders)

VERMONT

Mrs. W. J. Jeffords, Williamstown .. 6.97
(refund on order)

CLUBS

Be sure you know what you are getting into when you sign up in a book club, a record club, or any plan that provides for continuing purchases over a designated period of time. The following excerpts from a letter written by a record club clearly illustrate some of the problems:

"When you enrolled, you agreed to purchase twelve albums after receiving your initial shipment and introductory merchandise. Since your first shipment is part of the introductory offer, it does not carry fulfillment credit; nor do any albums purchased from special offers. . . .We are sorry, but we are unable to comply with your request to furnish you with a copy of the original application received in your name. Space limitations make it impossible to keep all applications on file for more than a specific length of time."

The subscriber to whom this letter was addressed had not realized that he had to buy a definite number of albums. He thought he was placing a single order for records. He found himself faced with a charge of $66.84, which even included postage on some free items sent him.

It is odd that the club could not produce the original application after only a few months. We question whether the club could legally collect without that document.

FRANCHISING

Franchising can be a legitimate business operation, but it can also be used as a lure by unscrupulous promoters. Avoid offers involving promises of huge profits with minimum effort. Check on the reliability of the company.

Pitfalls include: prohibitive cost of equipment and machines, no local market, lack of a desirable location, shoddy merchandise, and worthless guarantees.

Check the offering with your banker and/or lawyer, as well as with your local Chamber of Commerce or Better Business Bureau, before signing any papers.

BRECK'S OF BOSTON

For several months, readers have been sending us a steady flow of complaints against the 155-year-old firm, Breck's of Boston (officially known as Joseph Breck and Sons Corporation).

Having handled relatively few claims against this firm during recent years, the sudden increase sounded an alarm with READER SERVICE —and well it should have.

A few of the earlier complaints were settled, but then delaying tactics began to appear. A subscriber was asked to send copies of order and cancelled check when this had already been done. Promised refunds were not forthcoming. Only parts of orders were filled. Credit vouchers were not honored.

The firm was obviously in trouble. The Better Business Bureau of Eastern Massachusetts reported 1104 complaints in 4½ months — an unprecedented volume.

In spite of all this, Breck's 1973 catalogs were still arriving through the mail in February.

Bankrupt

On March 29, the firm filed bankruptcy proceedings in Federal District Court in Boston. Over 20,000 orders remained unfilled. In its petition to the Court, the firm estimated its liabilities at more than $3 million, including $565,000 in unshipped orders and $300,000 in unredeemed credit vouchers. It is expected that banks and other lenders will have priority among the company's creditors.

Anyone who wishes to file for a refund should send full details of his transaction to: Office of Referees and Legal Bankruptcy, Room 1128, John W. McCormack Post Office and Court House, Boston, Massachusetts 02209.

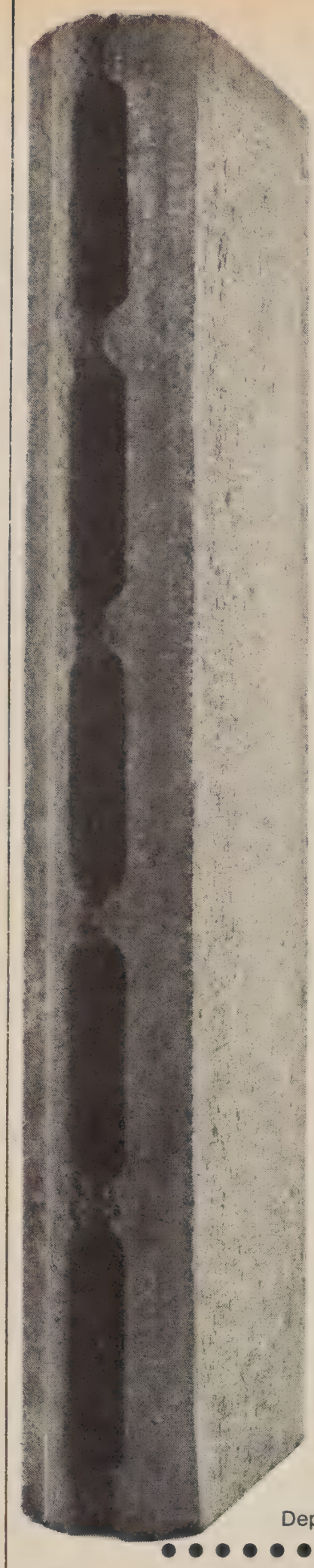
Most of the foregoing information developed too late for the May issue. Subscribers who have been calling on us for help in dealings with Breck's have been kept informed of recent developments by mail. We hope this item will be of value to others who have not yet written us.

CHAIN LETTERS

Federal postal lottery and fraud laws prohibit the mailing of chain letters which request money, bonds, books, or any other item of value; or which promise a substantial return to the sender. The maximum penalty is two years' imprisonment and a fine of $1,000.

Readers should refer any such letters to their local postmasters.

Inquiries and requests for assistance should be addressed to Reader Service, American Agriculturist and the Rural New Yorker, Box 370, Ithaca, New York 14850.



This is the strongest concrete stave.

Put your money on the strongest concrete silo—made with Vibra-Cor® staves. They're stronger than ordinary concrete because they're nearly twice as thick (3⅝ inches).

Truss is constructed with five insulating air spaces. All four sides interlock in a fully joined wall for a solid structure designed to give a lifetime of maintenance-free use.

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For more information on Agway-Madison silos, please send the coupon. And now is the best time to discuss silage storage needs with your Agway Enterprise Salesman.

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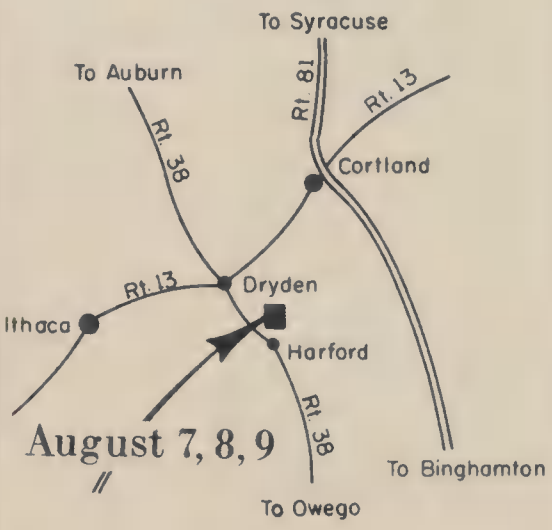
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Farm News, Notes and Nonsense



HORSES — AT A PRICE

As the interest in riding horses remains strong and the ability to pay for them holds, the market naturally is well-supported. Being in the market for another animal, we've been doing a little looking and haven't noticed any discernible weakness in the market. All things are relative, though, and by comparison, horses in this area are quite reasonably priced.

Let me take it from the top. At the conclusion of a recent conference in California, two of us with some time to kill before the flight home rented a car and visited some farms in the Chino Valley east of Los Angeles. One was a farm where they train young racehorses (60 head), keep brood mares (300 plus) and their foals, and stand about 20 stallions.

It was quite a sight to see all those beautiful mares and colts out in the pasture. Even more impressive were the stallions. What absolutely wonderful specimens — all successful competitors at the racetracks before being offered at stud.

Here's the way it goes. A group of men, preferably well-heeled, decide to buy a certain horse. They syndicate him, which merely means that each one buys a share or shares. Depending on circumstances, they can come up with a horse of the quality we saw for a half-million or so. The pride of the place we visited was a nice-enough sorrel that cost $2.5 million.

The owners of these horses paid the man who owns the farm to care for them. He and his help trained the young horses on his track until they were ready to join the racing strings of their various owners. (Incidentally, the young men and women who were caring for these trainees were themselves trainees hopeful of one day becoming successful jockeys at the big tracks.)

The mares and colts were likewise "boarded." Of course, record keeping, breeding and all the rest were a big part of the responsibility of the farm owner.

Now we come to the big deal. The stallions were the property of these various syndicates. Each horse's services were booked well ahead with a formal contract as to the responsibility and liability of each party. Inspection, health examinations, pregnancy checking, etc., are such a routine part of this business that a veterinarian spends each afternoon at the farm.

The best horse there was standing at stud for $30,000. For 40 services a year, his gross was $1,200,000. We did not find out what the expenses were, but would assume that even after big insurance premiums, and vet and other costs, there might be a couple of bucks left.

The records were an interesting part of the business. Thoroughbred registry publishes track records and winnings of each horse. Likewise, every mare and stallion has a listing of their progeny — races started, place, winnings, etc. Then at the yearling sales, the prices of the progeny of each sire are totaled so that it is a matter of record what the buying public thinks of the various bloodlines. It's all more precise and businesslike than any other phase of farming we've ever encountered.

Just as a matter of record, we didn't buy any thoroughbred horses in California. Quite a ways to ship them, you see!

THE NEXT FRONTIER

Over the past few years, the place where the action has been on dairy farms has been in the housing and milking arrangements or rearrangements. The trend, of course, has been toward freestall systems of various kinds, including those able to keep cows separated into groups at various levels of production. Different sizes and arrangements of parlors have occupied the attention and captured the capital of many. More innovations will surely be forthcoming in these areas but that's not where the real action seems most likely.

Manure storage and handling systems appear as the logical next point of interest, improvement and capitalization. There are several reasons why I think this has to happen. Possibly first and most pressing is the matter of not having to spread manure on weekends. A chronic weekend labor shortage already exists on many dairy farms; this will get increasingly worse. It's not really such a great thing to get a Sunday off if the next Sunday means doing double duty. The answer has to be to eliminate some jobs over the weekend.

Pinch Will Hit

Anyone who doesn't think this weekend labor pinch will hit him is living in a dream world. How it is solved may well be the key to keeping farm help. An extreme case, or maybe just a forerunner, has to do with what happened in California in early April.

The Teamster's Union dairy negotiated a new one-year contract with companies and dairies which produce 8 percent of southern California's milk. The contract called for a four-day week (10 hours a day) with double time for more than 10 hours a day or more than 40 hours a week.

Workers were getting $5.08 an hour plus $1.30 an hour for fringe benefits. The new contract is up 5.5 percent, plus another 15 cents an hour to the pension fund. Monthly retirement pensions will go up to $380. Employers also agreed to an extra 8 cents an hour for health and welfare benefits.

We don't have those rates or problems yet, but the push for time off on weekends is just as real. Manure handling and spreading will just naturally be the number one target in this quest for some slack in weekend labor requirements.

There have already been some interesting and expensive investments in new and not so new facilities for storing manure. Just to show that there is really nothing new, there are various conveyors to carry the manure out away from the barn and stack it into a pile.

Unlike the old-fashioned manure pile, which was mostly dry and was built with a wheelbarrow or a dump bucket that rolled out along an overhead track, the new model is a combination of liquid and solid manure. This creates the need for a walled-in storage pit and may well end up requiring both solid and liquid handling equipment when it is loaded out to be spread.

Liquid storage, both above and below ground, is having some play — not entirely without problems. Freezing, both before and after the material is scraped into the storage, is not the only headache. The need for better engineering and structures becomes apparent when one hears of the disastrous happenings when walls give way.

The next need will be to get pumps that will, in fact, agitate and do what the salesmen claim. The two brands we used were no different than the ones mentioned by other farmers. They did a job but far below what was claimed for them.

Lagoons, ponds, aeration and oxidizing installations and dryers are all part of the picture as various individuals strive to reduce costs and labor requirements. As of this moment we've heard of no system that we think gets all that far away from the problems, but as need exists and as money is spent, progress will be made.

DAIRY PROBLEMS

The Chino Valley is a extensive dairy section with large herds on relatively small tracts of very expensive land. Mostly the improvements consisted of either a milking barn (ties for 60-120-240 cows with mangers for grain feeding) or a milking parlor or parlors with milk storage room attached. Most places had some kind of barn with fenced-off outdoor runs attached for starting and raising calves.

When not in for milking, the cows ran outdoors in dry lots . . . a paved apron along the fence with a manger for hay and grain. This might or might not have a little roof over it to keep the rain off the feed and cows while they ate. A sunshade roof was a common but not a universal feature of the drylots.

The biggest breakthrough these dairymen felt they had made recently was a colored chalking device to help them detect heat in their herds. Keeping their cows bred on time was with them, as with us, a major item. With herds of 200 to 2,000 it became imperative to shorten their calving interval. Chalking the cows, they said, was a great help.

We saw one rig digging a sizable pond right out in one of these feedlots of $2,000-per-acre land. How come? The Environmental Protection Agency had ruled that by 1975 each dairy must have a pond large enough to catch and held all the runoff that might come from their lots in case of a six-inch rainfall in 24 hours . . . which happens, as it does here, maybe once every 50 years.

On some of those farms with several hundred cows there just wasn't land enough to comply. Unless someone comes up with some new answers, there will be some cows and farms for sale in 1974. Incidentally, it costs about $700 to buy a good cow out there and $4,400 to buy the right or base to sell the milk you hope she will produce.

The feed for these cows was almost entirely purchased. It was beautiful baled alfalfa from irrigated situations where the land was cheaper. Cottonseed oil meal was an important protein source, and was mixed with corn and small grains to give about a 14 percent mixture. Feeding mostly excellent hay as their major roughage, they were doing all right on less protein than is typical in the Northeast where more silage is fed.

With exceedingly high-priced land, high taxes, high feed costs and high labor costs, and with milk prices no better than ours, we kept wondering how they were possibly making ends meet.

Parts of the answer were the large numbers of cattle per acre, the high quality of the feed, the excellent cows they were tending, the real efficiency of the labor force, and the high level of management. Their production per cow was really exceptional, even with those large herds.

The weather helped, I'm sure, but so did the high degree of specialization with full-time milkers, full use of equipment, full-time herd managers and specialized contracted health service which meant regular inspection, pregnancy exams, innoculations, etc. As a general observation, they have made real progress in breeding upstanding cows on good feet and legs with real pleasing udders.

After saying all this, we still wondered if they were making any real money, and don't know the answer as far as the dairy profits went. What we did finally come up with was that the land is appreciating so rapidly in value that if the cows could keep the bills paid for a few years, the farmer could sell out and be pretty well fixed, at least before taxes, whether or not he really made a lot of money with the cows.

Some of the land that seemed dear at $800 or so an acre just a few years ago is now worth $2,000 plus up and down the road. Individual sales might run up to several times that amount. Ten to 50 acres, times $2,000-$20,000 per acre, comes up to a range in sales prices that is at least interesting!

Don't Forget The Children!



Visiting with their local N. A. agent Rod Guichard of Randolph, N.Y. are (from left to right) Steven Wyllys age 16, Donald Snyder age 14, Robert Rolfe age 14, Alan Slater age 10 and Bonnie Slater age 12. All are from the East Randolph, N.Y. area and have received benefits from their North American Protection.

$1258.56 paid to Alan Slater, Jr. for his broken leg accident. Bonnie Slater drew $320.56 the first time she broke her wrist then $463.85 the second time. Their parents wrote:

We would like to take the time to tell you how much it means to know you have good insurance coverage. The North American Accident Insurance Company has shown us that this is what they do for their policyholders.

We have had four accidents within a couple of year's time and you know it only takes one hospital stay to put a burden on you.

In the fall of 1970 my husband got his hand caught in a self-unloading wagon chain and lost his thumb and first two fingers. September 1971 our daughter fell in the barn and broke her arm. April 1972 our nine-year-old son fell in the hay mow and broke his leg. This required 42 days in the hospital—flat on his back with his leg in traction. His summer was spent six weeks in a body cast and two months on crutches. January 1973 our daughter fell on the ice in the driveway and broke her arm over again.

We carry a combination of policies on our family and they sure have been our "Bridge Over Troubled Water."

We would like to thank our local agent, Rod Guichard, Randolph, N.Y. for introducing us to the North American Accident Insurance Company and keeping us renewed.

Alan and Nancy Slater

$1492.84 paid to Steven Wyllys. He was changing heifers to different stanchions and was knocked down. Injuring both hips he was in the hospital twenty days. The Wyllyses wrote:

We were very happy with the way North American Accident settled our son Steven's hospital and doctor bills. Steven was also happy with the $30 a week he received from his policies while he was unable to work for his Dad on the farm. Many thanks again to a great company and a fine agent, Rod Guichard.

Mr & Mrs John A Wyllys

$1525.00 paid to Donald Snyder. He spent 34 days in the hospital with a fractured thighbone and a long time at home recovering. His parents wrote us:

On Jan. 22, 1972 our son Donald was in an automobile accident. He received a broken left leg. He was in traction for six weeks and then in two body casts which took a total of ten weeks.

A few days after the accident we sent in our claim card to start our claim. In just a few days we received our paper to be filled out. In a matter of days after we filled out some of the papers and sent them in he received his first check for the missing of school, the rest came later.

After his last body cast was taken off and the doctor filled in his part and we collected all our bills we sent them in and again in a few days came his check for $1000.00.

Now we have another claim. In December my husband Philip received a gunshot wound.

We all have at least 3 policies each with "North American." We think it's really good insurance.

Mr & Mrs Philip Snyder

$1522.84 paid to Robert Rolfe. He was in the same auto accident with Donald Snyder and also broke his thighbone spending 34 days in the hospital. His folks wrote:

We are satisfied with the policies that Mr. Guichard has sold us over the years, to protect our family. We appreciated the quick service we received when Robbie had his accident.

Mr & Mrs Robert Rolfe

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1973
FAIR DATES

Information Supplied by
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NEW YORK

Ontario County Fair, Canandaigua	July 9—14
Trumansburg Fair	July 10—14
Afton Fair	July 15—21
Lewis County Fair, Lowville	July 16—21
Yates County Fair, Penn Yan	July 16—22
Allegany County Fair, Angelica	July 17—22
Onondaga County Youth Fair, Syracuse	July 21—22
Jefferson County Fair, Watertown	July 22—28
Seneca County Fair, Waterloo	July 22—28
Chautauqua County Fair, Dunkirk	July 23—28
Saratoga County Fair, Ballston Spa	July 23—28
Hemlock Lake Fair, Hemlock	July 24—28
Madison County Fair, Brookfield	July 25—29
Clinton County Fair, Plattsburgh	July 27—Aug. 1
Orange County Fair, Middletown	July 27—Aug. 4
Broome County Fair, Whitney Point	July 29—Aug. 4
Cattaraugus County Fair, Little Valley	July 29—Aug. 4
Oneida County Fair, Boonville	July 30—Aug. 4
Otsego County Fair, Morris	July 30—Aug. 4
Caledonia Fair	July 31—Aug. 4
Tompkins County Fair, Etna	July 31—Aug. 4
Greene County Youth Fair, Durham	Aug. 1—3
Schuyler County Youth Fair, Watkins Glen	Aug. 1—4
Orleans County Youth Fair, Knowlesville	Aug. 1—4
Niagara County Youth Fair, Lockport	Aug. 6—9
Chenango County Fair, Norwich	Aug. 6—11
Genesee County Fair, Batavia	Aug. 6—11
St. Lawrence County Fair, Gouverneur	Aug. 6—11
Chemung County Fair, Horseheads	Aug. 6—12
Cortland County Youth Fair, Cortland	Aug. 7—11
Cayuga County Youth Fair, Auburn	Aug. 8—12
Rockland County Youth Fair, West Nyack	Aug. 10—12
Ulster County Fair, New Paltz	Aug. 10—12
Warren County Youth Fair, Warrensburg	Aug. 10—12
Albany, Schenectady and Greene County Fair, Altamont	Aug. 13—18
Delaware County Fair, Walton	Aug. 13—18
Monroe County Fair, Henrietta	Aug. 13—18
Oswego County Fair, Sandy Creek	Aug. 14—18
Essex County Fair, Westport	Aug. 14—18
Tioga County Fair, Owego	Aug. 14—19
Dundee Fair	Aug. 15—18
Herkimer County Fair, Frankfort	Aug. 15—19
Sullivan County Youth Fair, Grahamsville	Aug. 17—18
Erie County Fair, Hamburg	Aug. 17—25
Wyoming County Fair, Pike	Aug. 19—25
Franklin County Fair, Malone	Aug. 19—26
Wayne County Fair, Palmyra	Aug. 20—25
Steuben County Fair, Bath	Aug. 20—26
Washington County Fair, Greenwich	Aug. 21—25
Schoharie County Fair, Cobleskill	Aug. 21—26
Dutchess County Fair, Rhinebeck	Aug. 21—26
Genesee Valley Breeders Fair, Avon	Aug. 25—26
New York State Fair, Syracuse	Aug. 28—Sept. 3
Montgomery County Fair, Fonda	Aug. 29—Sept. 3
Columbia County Fair, Chatham	Aug. 30—Sept. 3
Rensselaer County Fair, Schaghticoke	Aug. 30—Sept. 4
Nassau, Queens and Suffolk County Fair, Bethpage	Oct. 5—8

More fair dates on page 20. Fair dates in other states will be in July issue.

NEW JERSEY

Camden County 4-H Fair, Cherry Hill	June 28 — 30
Great Monmouth Fair, Freehold	July 3 — 8
Union County 4-H Urban Fair, Scotch Plains	July 7 — 8
Cumberland County Fair, Millville	July 9 — 15
Bergen County 4-H Fair, Paramus	July 12 — 14
Burlington County Farm Fair, Lumberton	July 19 — 21
Cape May County 4-H Fair, Cape May Court House	July 19 — 21
Ocean County Fair, Lakewood	July 24 — 26
Gloucester County 4-H Fair, Mullica Hill	July 26 — 28
Passaic County 4-H Fair, Wayne	Aug. 2 — 4
Morris County Youth Exposition, Morristown	Aug. 2 — 4
Sussex County Farm and Horse Show, Branchville	Aug. 6 — 11
Middlesex County Fair, East Brunswick	Aug. 7 — 11
Salem County Fair, Cowtown	Aug. 8 — 10
Atlantic County 4-H Fair, Egg Harbor	Aug. 9 — 11
Essex County 4-H Fair, Caldwell	Aug. 10 — 11
Mercer County 4-H and Farmers' Show, Trenton	Aug. 10 — 11
Somerset County 4-H Fair, Somerville	Aug. 15 — 17
Warren County Farmer's Fair, Harmony	Aug. 15 — 18
Flemington Fair	Aug. 28 — Sept. 3
New Jersey State Fair, Trenton	Sept. 7 — 16

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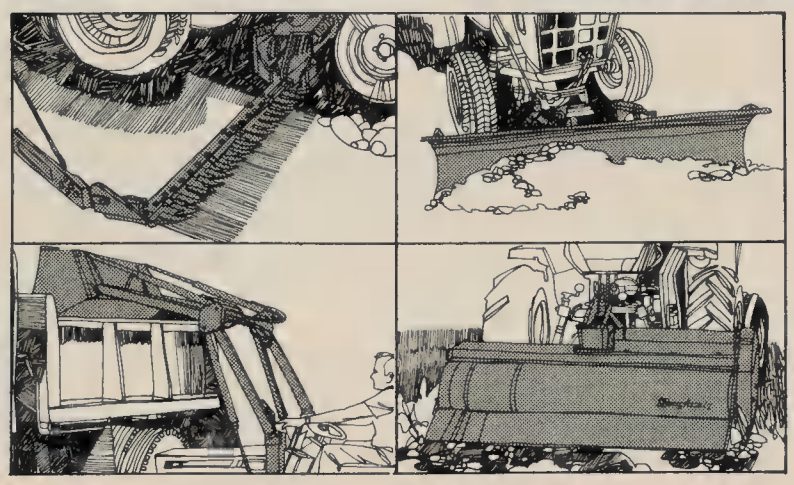
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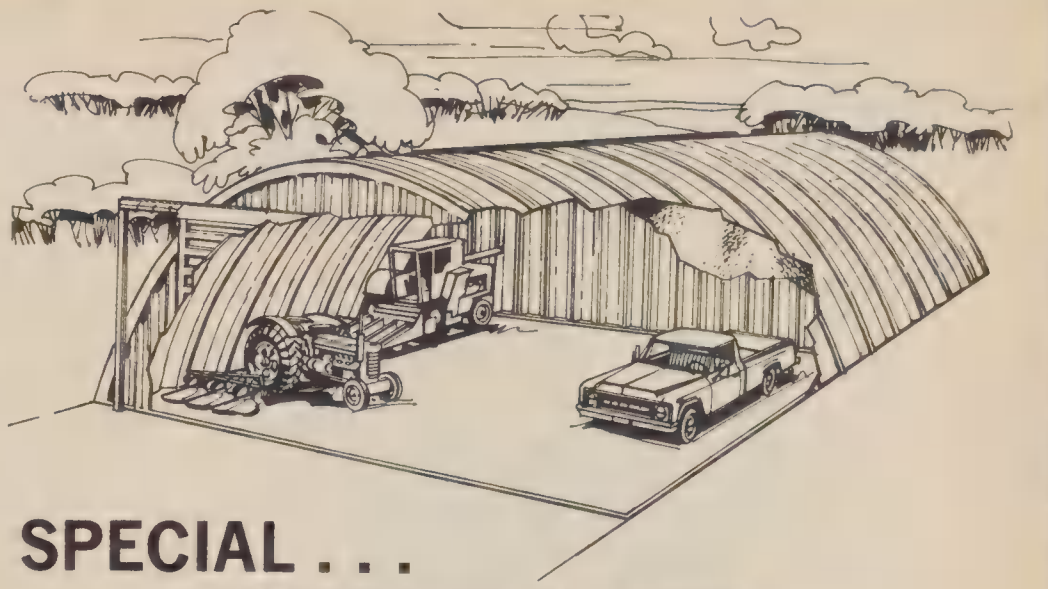
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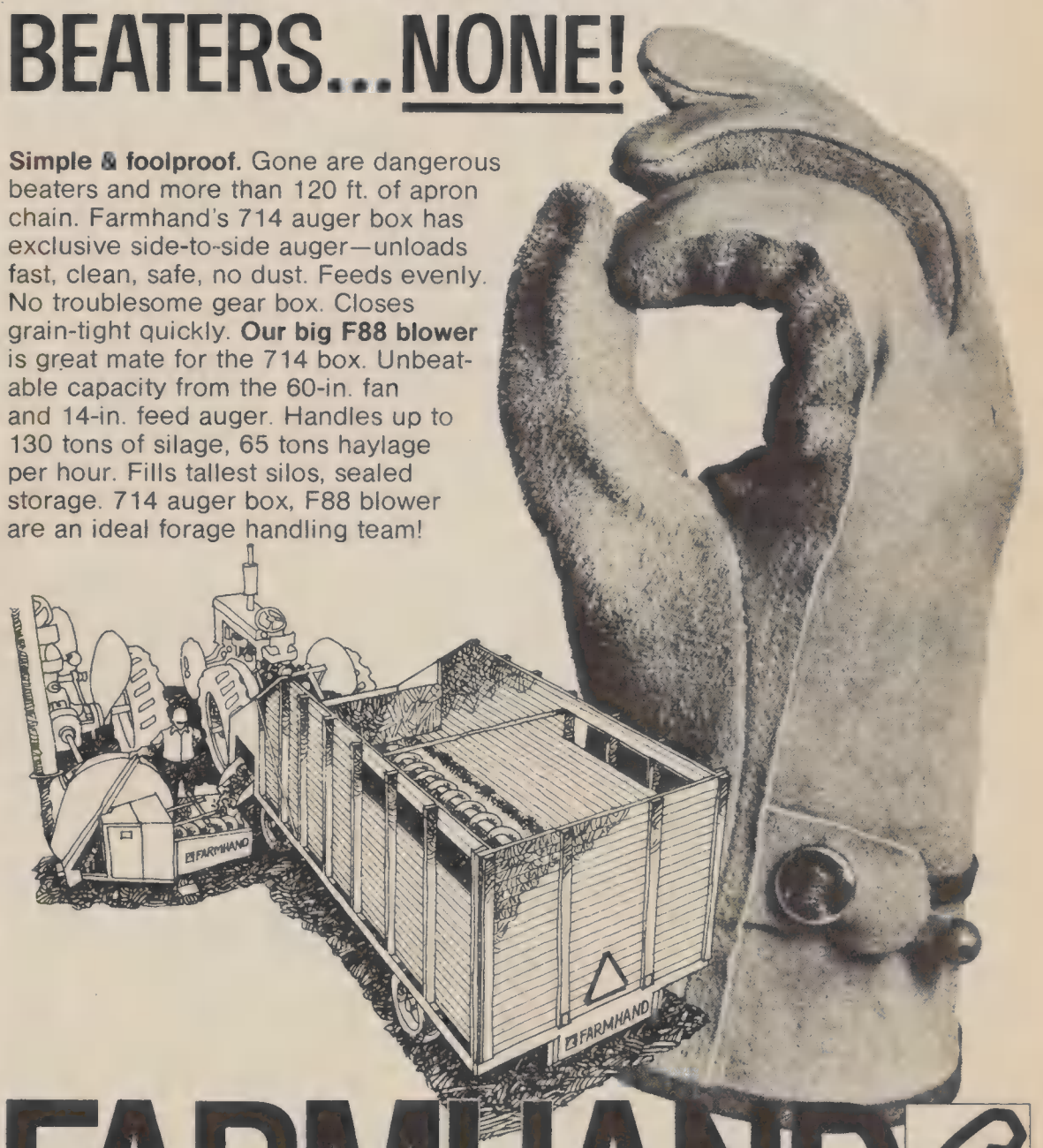
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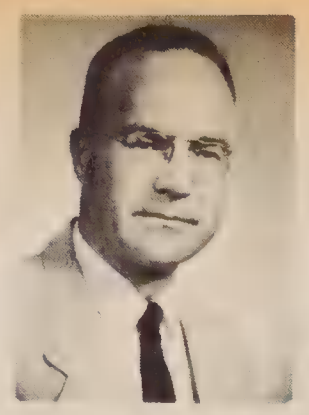
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EDITORIALS



by GORDON CONKLIN

WELCOME ABOARD

Earl Ainsworth, a recent graduate of Cornell University, is now field editor for AMERICAN AGRICULTURIST.

He grew up on a dairy and poultry farm near Rexville in Steuben County, New York . . . and served four years in the Marines, is now a captain in the reserves.

Earl, his wife, and small son reside at Ithaca, New York.



Earl Ainsworth

DEER HARVESTER

Every now and then, I receive a letter from someone who damns hunters for being cruel to animals.

As I read these letters, I remember a study done in Seneca County, New York, sponsored by that county's Soil and Water Conservation District. In just this one county, there were 159 auto-deer accidents between March 1 and September 30, 1972. There were 142 deer killed on the road, and 17 managed to leave the scene of the collision . . . undoubtedly to die of their internal injuries, or dragged down by domestic dogs.

The average damage to each vehicle amounted to $428, and the work of police, highway department people, and other public employees involved a cost of $5,724. This made a total cost connected with these deer-auto collisions of nearly $74,000 . . . just in one county, and for only seven months!

Multiply this by the hundreds of counties in the Northeast . . . many of which have more deer than Seneca County . . . and the enormous dimension of potential deer-auto accidents emerges. I end up firmly convinced that the hunting of deer . . . managed according to reasonable rules . . . is very much needed for people-protection on the highways.

Furthermore, my guess is that the gun is a far more humane tool of game management than is the automobile!

DOWN WITH FREE ENTERPRISE!

Some time ago, I received a letter from a man incensed by an editorial saying that food is **not** high priced in comparison to wages and most other items people buy . . . and that farmers deserve the enhanced profits coming from even **higher** food prices.

Among other comments, the reader wrote, "If we had any kind of a strong government, something would certainly be done with all the profiteers who are robbing the American people and thereby enriching themselves." He goes on with irony, "But of course we must not do anything to interfere with 'free enterprise,' which means the freedom to bleed the people."

Another letter from a well-meaning woman proposes that electric power companies cut executive salaries by 50 percent rather than raise rates charged for electricity. She didn't explain what she would do if **her** income were cut 50 percent, and she obviously didn't understand the supply-demand relationships concerning management people, investment money borrowed by utilities . . . or the realities of rising union wages, taxes, and other business expenses.

Capsuled in these letters, it seems to me, is a great misunderstanding of the sources of the abundance enjoyed by most Americans. Some folks think all economic problems can best be solved by "a strong government" which would arbitrarily set prices and dictate to businessmen and consumers alike what is to be produced, and how much. But the record of "strong-government" countries like Russia, China, and many more do not indicate that this is true.

Our system of limited free enterprise offers the opportunity to make a profit . . . an enormously-powerful stimulator of individual and collective effort. My neighbor often chooses to work at his farming far into the night, and begins again the next day at dawn . . . something he would never do on a collective farm where the amount of his return has no connection to his effort, and where he owns no part of the farm.

Folks, if we shackle agriculture with price controls . . . and choke it in reams of bureaucratic red tape . . . we'll kill the goose that lays the golden egg. Free enterprise is as relevant a principle as it ever was . . . still primarily responsible for the fantastic productivity of America's farms.

EMPIRE FARM DAYS

The 1973 version of Empire Farm Days is scheduled for August 7 – 9 at the research farm owned by Cornell University just south of Dryden, New York . . . the same site as in 1972.

Over the years, this event has become a farm show that draws people from a wide area across the Northeast. The latest farm equipment is not only on display; much of it is also demonstrated in action.

Set aside at least one day, and join your neighbors at a great farm show.

GUEST EDITORIAL

In view of the current hue and cry over high prices for food, particularly meat, it is interesting to look at a new book called "The Overproduction Trap in U.S. Agriculture." The authors say, "Some programs (in the past six decades) have worked . . . many as emergency measures, others as longer-range efforts to conserve soil or stabilize farmers' incomes. On the whole, however, . . . the record is not encouraging: despite efforts at restriction, agriculture has shown a persistent tendency to overproduce; neither farmers' incomes nor prices to consumers have been stabilized over the long run; and in view of competing needs, too large a proportion of the nation's resources has been devoted to investment in agriculture or agricultural programs."

There are many reasons why agricultural programs have not worked. Pessimistically, we might say because it is impossible or because of human nature. In a more optimistic vein, we can say that programs don't work because we are not willing to accept reality. The elements of reality that need to be accepted are: 1) chance 2) the nature of the agricultural process 3) the nature of agricultural price making 4) the rigidity of human demands for food.

The role that chance plays in the operation of agricultural programs is largely tied in with the weather. Floods, droughts, excess cloudiness and exceptionally good weather can all mean that "normal" or average yields will not occur. It may be felt that the U.S. is big enough so that we can count on "average" production, but that is not true.

The agricultural process is tied to a fixed time schedule. With annual crops, it is impossible to change crop production more than once a year. It takes varying lengths of time to produce different animal products, but there is some lag in all cases. Thus when something like the Russian wheat deal disturbs the equilibrium it is impossible to make immediate adjustment. No amount of cajoling or imploring will make up for the shift in supply.

The economist has explained that agricultural prices are subject to wide fluctuations. Agricultural prices are inelastic . . . they do not stretch to accommodate changes in circumstances. A small change in supply means that prices will change very noticeably. This nature of agricultural prices has been described and understood but it still doesn't seem to make sense. When prices are out of equilibrium, small agricultural output has greater total value than large output.

It is the persistence of appetite, of course, which makes for the extreme fluctuation in price. There are 365 days in the year. There are very few people who would fast once every three or four months if food was scarce, but that is necessary to account for a one-percent decline in supply.

Thus it is not surprising that there is a general complaint that agricultural programs don't work. They can't work. See how people howl when there is a slight shortage. The only way to be sure to have enough food is to have too much. — *Dr. Sargent Russell, University of Massachusetts.*

MOBILE HOMES

Amidst sharply-rising building costs, mobile homes have become even more attractive as a housing alternative. However, no area of land-use control causes as much concern, and is subject to so much confusion, as that concerning mobile homes.

For instance, a village near where I live has a zoning ordinance that specifically prohibits mobile homes within village limits. This, in spite of the fact that the decisions of several judges in New York State very clearly state that, "The municipal power to regulate mobile homes does not include the power to prohibit them."

That quotation comes from a publication entitled, "Municipal Regulation of Mobile Homes" (legal memorandum #11). It, and a series of nine pamphlets entitled "Facts on Mobile Homes," are available from: New York State Office of Planning Services, 488 Broadway, Albany, New York 12207.

THE PASSING PARADE

Visited a farmer the other day who had two sons . . . one out of college, and one still attending.

I remarked about the degrees his older son had earned, and he replied, "Yeah, he has his B.A. and his M.A. . . . but he's still living off his P.A.!"

I decided to drop that subject, and asked him what his younger son planned to do after completing college.

"I'm not exactly sure," was the reply, "but judging by the letters he writes home, my guess is that he'll be a professional fund raiser!"

A message from Agway on the feed price situation

High feed prices continue to plague dairymen here in the Northeast. The situation is receiving the bulk of my time and efforts and that of my Agway associates.

One of the positive ways we can help is to suggest how you can make best use of production tools at your disposal.

As a part of this effort, I hope that the accompanying suggestions from Darwin Braund of the Agway research staff will be of value in your operation.

Sincerely,

Ronald Goddard

Ronald N. Goddard
EXECUTIVE VICE PRESIDENT
AND GENERAL MANAGER



If ever there was a time...!

If ever there was a time when you need to use all the "tools" available to produce milk profitably—it is *right now!* The unprecedented high feed costs of recent months continue to be a serious economic threat for Northeastern dairymen—now and for the next several months.

Spend a few minutes with me to take inventory of the "tools" you have available to minimize reduced profitability. Then put as many of these tools as possible to work as fast as you can—like *today.*

1. Balance your feeding program...

This is always a basic requirement, but when feed prices are high it becomes essential to conserve and utilize *all* nutrients (purchased and homegrown) effectively. We recently rebalanced the feeding program for a 100-cow herd, which resulted in a feed cost saving of *$209 per week.* How? By utilizing forage testing results to: (a) make more use of hay crop silage with corn silage; (b) reduce protein in the grain ration and; (c) eliminate grain for cows below 30 lb/day (this was possible because the forage tests indicated both the hay crop silage and corn silage were of high quality).

Fourteen Agway dairymen who recently participated in a controlled field research study compared the Agway balanced feeding program to their own feeding practices. Result . . . *they improved net income by $65.00 per cow per year.*

This same program is available to you through your Agway store, representative, or Dairy Enterprise Salesman. It's called the Total Dairy Ration (TDR) Profile. Ask about it.

2. Produce and conserve homegrown protein...

That means alfalfa in the form of silage—especially the first cutting. Forget about trying to make hay. Also forget about making very low-moisture hay crop silage. Chop at 55 to 65% moisture. If you get caught with material below 50% moisture, add alternate loads of higher-moisture forage. Otherwise, you will lose 50-75% of the protein in the silo, because the browning reaction makes it unavailable to the cow. Use a forage moisture tester every day you chop silage.

3. Utilize urea...

A very significant feed cost saving can be obtained with the use of urea-containing feeds. At current prices dairy feeds (16-24% protein) formulated with urea are $12.00 to $35.00 less per ton than comparable feeds without urea.

4. Use LPS to improve nutrient balance...

The use of LPS (liquid protein supplement) by Northeastern dairymen has increased dramatically in the past year—nearly doubled—and for many good reasons. Agway has done and continues to do extensive research work which qualifies this product for most dairy feeding programs. Where LPS is available and is top-dressed on forage, it helps increase consumption of medium- to low-quality forages and at the same time improves the daily ration nutrient balance. When cows have access to LPS on a free-choice basis, they tend to consume enough LPS to bring protein intake close to needs.

A year-long study at the Agway Farm Research Center has proven that a high proportion of cows will voluntarily make this important nutrient adjustment. At present protein prices, equivalent protein from LPS is your most economical source of purchased protein equivalency.

5. Utilize Agway "Ratio:Right" dairy feeds...

These specially formulated dairy feeds meet two very important feeding program needs: (a) they *minimize over- or underfeeding* of protein and energy and (b) they emphasize the *balance* of *all* nutrients. With Agway "Ratio:Right" dairy feeds you feed what is needed, and *only* what is needed, to balance your farm-grown nutrients.

6. Don't surmise—analyze!

Guessing your forage quality is a practice you can't afford if you're milking cows to make money. Sample your forages as they go in the silo or mow. Have Agway get them tested for you *before* the barn feeding season starts. Then a balanced feeding program with the proper Agway "Ratio:Right" feeds can be developed specifically for your herd.

Your Cooperative has been a leader in developing high-profit-potential dairy enterprise programs using sound practices and products, such as forage analysis, "Ratio:Right" feeds, TDR Profile and LPS.

This profit potential can be realized only as you put these "tools" to work on *your* farm.

AGWAY Inc.

Darwin G. Braund

Darwin G. Braund, Ph.D.
DIRECTOR, DAIRY AND LIVESTOCK
RESEARCH AND DEVELOPMENT

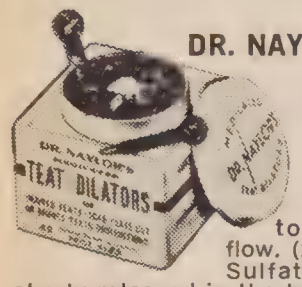


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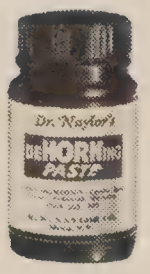
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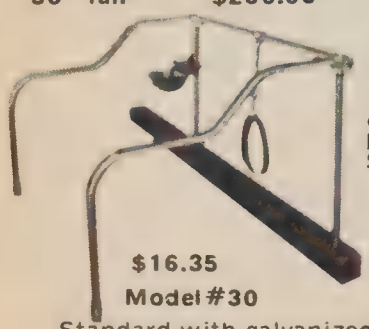
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Food For The Spirit



by Robert L. Clingan

Every year, thousands of people visit the Bok Tower and gardens in Florida. In a lovely setting of flowers, they hear beautiful music from the carillon in the tower. Few know the story behind this tower, and the heritage of the man whose name it bears.

Edward Bok came to this country as a poor immigrant boy. He eventually became a publisher of women's magazines, and pioneered in the effort to inspire and guide women who wished to make their homes more beautiful. His magazine also sponsored home-design contests for architects, at a time when the focus of architecture was on public buildings.

Behind this man's great efforts to make his part of the world more beautiful was the experience of his grandparents. His grandfather had been sent by the Netherlands government to a barren, windswept island in the North Sea. When asked what he was going to do on that island, he replied, "I am going to set out trees, and get them growing."

"What if they die?" someone asked. He replied, "I will set out some more until I get some that will survive."

Success

He was successful in his goal; in a few years he had a good stand of trees. Then he introduced some nightingales to the island. In time, the birds became so numerous that the island became known as "The Island of Nightingales," and the air was filled with their songs.

This consummate effort to create beauty where little had existed before was part of a philosophy of life. The grandmother of Edward Bok told each of her children, in her own Germanic sentence construction, "Make you the world more beautiful because you have been in it."

This was the life philosophy by which she and her husband lived, and which she successfully communicated to her children and her children's children. This wisdom of a grandmother flowered in the vocation of Edward Bok . . . his women's magazines, his competitions for architects, and finally in the Bok Tower that visitors to Florida enjoy today.



"The doctor said take two aspirins and call him in the morning."

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Doc Mettler comments on:

Vet shortage

GRADUATION has come and gone for 1,400 brand new veterinarians from the 19 veterinary colleges in the United States. Already most of them will be at work in their chosen branch of the veterinary medicine field gaining more experience before going out on their own.

They will have had an average of more than seven years of college behind them (at least three years of pre-vet courses are required before entering a four-year college, and many students have more than this minimum requirement). They will continue to study by reading and taking specialty or refresher courses as long as they remain active in veterinary medicine.

Fourteen hundred new graduates cannot possibly fill the needs of this country, according to a report from the National Academy of Science. This same report states that for every veterinary student accepted for entry to a veterinary college this fall, 19 were turned down.

Sad State

This is indeed a sad state of affairs, especially when there are areas where livestock and pet owners cannot always easily obtain a veterinarian's services when they need them. The Northeast does not feel this shortage as much as other parts of the country, but it is felt to enough of an extent that a New England Veterinary College has been talked of for several years.

One might ask, "Why talk, why not do something?" Further, a second question is often asked, "Is the veterinary profession, like the electricians' union, restricting the number of its members to keep prices up?" The answer to the first question is long and complicated, and I would like to discuss it further. My answer to the second question is a resounding **no**, and I will try to give my reasons for saying this.

To produce more veterinarians you need more colleges of veterinary medicine. Even where the money to build them is made available (as in Louisiana), it takes years to start the first class because people to make up the faculty for such a school are not available. Just being a veterinarian does not make a person qualified to teach; years of graduate work and experience go into making a professor of veterinary medicine. Even after this extra education, the salaries available to these people in fields other than teaching make them apt to leave teaching.

Devoted

One has only to talk to any faculty member of our nation's veterinary colleges to realize that these men and women are teachers because they are devoted to their profession and the good of mankind in general; salary is secondary. Any one of them could make more money as a practitioner with simply a DVM or VMD degree than he makes as a teacher with an advanced degree and years of experience.

The 1971-72 report from a well-known veterinary college listed 85 professors and 95 other professional teachers, or a total of 180 to educate 242 undergraduates and 54 graduate veterinary students. Besides this, there was a non-professional staff of 252, many with special talents and skills that take years of training.

Why does it take such a large staff to teach such a small number of students? Because the veterinary student today has to learn far more theory and technical data than his counterpart of 30 years ago, plus all the laboratory work that goes with it.

The only way your veterinarian learned how to do surgery on your dog, horse, cat or cow was by first handling every bone and every landmark on these bones of each of these animals. He had to learn where every muscle, ligament and tendon attached to the bones.

Dissect

Then he had to dissect a dead animal of each of these species to learn where these muscles go, where the nerves and arteries and veins lie, what layers of tissues cover the muscles, where the internal organs are in relation to each other and where their blood and nerve supply is. All this, remember, is done by each student, not by a professor with students watching. In fact, we might say it is done by the student with a professor or assistant professor watching.

After this, live animals are worked



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on in physiology with a professor or assistant peering over the shoulders of each four-man team of students while they learn anesthesia, blood pressure, intravenous techniques and reactions to drugs used during surgery. The following years, surgical procedures are practiced on live or dead animals . . . again under the watchful eye of a professor.

Actual Cases

In the fourth and last year of veterinary college, the student again does surgery, this time on actual cases, but still under the supervision of a professor. All this just so he or she can spay a dog or cat, remove a fractured splint bone from your horse, or perform a cesarean on your cow or ewe.

Duplicate hours are spent learning about bacteriology, pathology, pharmacology, nutrition, genetics, immunology, toxicology, parasitology, obstetrics, epidemiology, roentgenology, more physiology, radiology and all the laboratory procedures connected with these things.

Nearly all this is done with a professional instructor practically looking over the student's shoulder. To put this another way: could **you** have learned to ride a horse, train a dog, milk a cow or shear a sheep by sitting in a lecture hall with 300 other students?

Controls

As far as veterinarians restricting their own numbers to keep up prices, I cannot believe this has ever been true of the people who have the power to control such things. There are ten jobs offered for every graduate, and the main complaint I hear from colleagues is that there are just not enough days in the week, or hours in the day to do all the work that presents itself.

Talking herd health programs is one thing. But these programs take time, and many herds have only emergency work done because no veterinarian has time to work out a disease prevention herd health program for them.

Every veterinary magazine I have read in the past year has had at least one issue devoted to the problem of supplying more veterinarians. Ask your own veterinarian how much time he can spend with his family, or how many days of actual vacation he took last year. To most of us, there is no more rewarding work in this world than veterinary medicine, and the thing that is on our mind more than anything else is that there just are not enough of us to do the things we know you want done.

Answer

So what is the answer? Some of our educators believe the answer is more veterinary technicians . . . that is, a trained group of people who can, under a veterinarian's supervision, do the lab tests, prepare animals for surgery, trim feet, collect blood and other materials for lab tests, sterilize and set up instruments, assist during surgery, and on and on.

You might say that these people would be somewhere between the paramedic and the trained nurse in human medicine. I am not going to enter into the pros and cons of this idea, since the subject in itself is, as someone has put it, "quite a can of worms." It is a fairly new idea and needs much study and thought.

Another approach for large-animal medicine is to train every cattleman to be his own veterinarian. This has been the answer in many areas of the county; to me, it's a waste of valuable management ability. It's true that a cattleman, in order to exist, has to be able to do his own routine treatments, but to expect him to educate himself in diagnosis is too much to ask. This is particularly true when the animals whose illnesses he is learning (by trial and error) to diagnose are worth what they are today.

A combination of the technician program and livestock owners or herdsmen being their own technicians may be the answer.

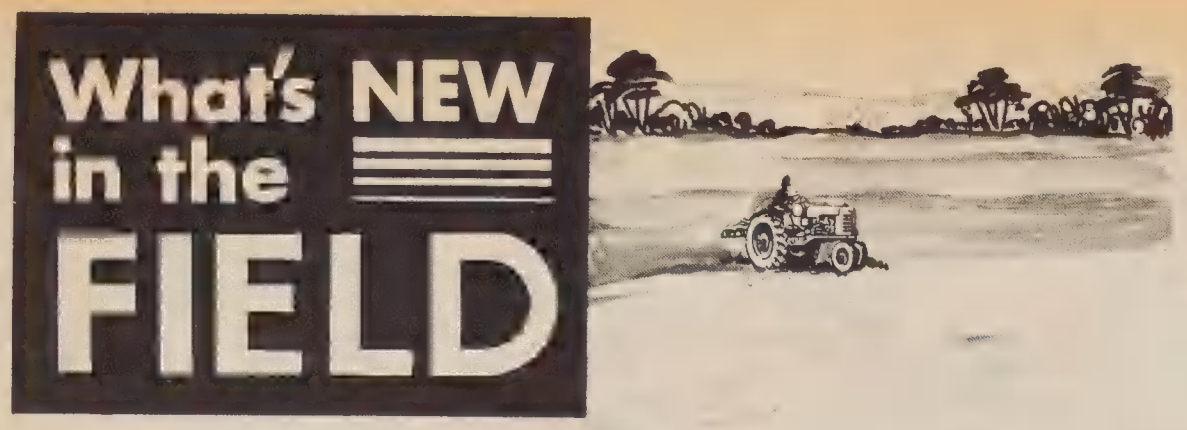
Since the public pays to support veterinary colleges, the public has a right to expect to obtain the services of a veterinarian to set up a herd health program or treat a sick puppy at a fair price to both parties . . . just as the public should be able to buy meat, gasoline or passage on an airplane at a fair price to both the purchaser and seller.

Please note that I refer to "a fair price to **both** parties." Public-educated or not, you cannot expect a veterinarian, who has devoted eight years of his life to education, to work for less per hour than a plumber or TV repairman. The veterinarian doing small-animal work with the assistance of technicians, and doing large-animal work as the professional adviser in a herd health program, can accomplish far more and be worth far more per hour of time spent, both to himself and to the animal owner.

It seems as though too many of our problems today are talked about and talked about, but nothing is done. Perhaps I have already spent more words on this than are necessary, but I do feel that unless all of us concerned are aware of the complexity of the problem, no action will be taken.

A veterinary college in New England can be a reality, as well as expanded technical schools and courses in all of the northeastern states, if there is enough public demand for them. I hope the public will make its wishes known.





Forage seeds

by W. D. Pardee

IT'S an odd time of year for an easterner to be worrying about alfalfa seed, but that's just what I've been doing during the past month. I've just completed a tour of the nation's prime alfalfa seed growing areas in the irrigated regions of the far west, where I visited with seed growers, seedsmen, and agricultural-college specialists to discuss the future of alfalfa seed supplies from that area.

I've learned much that's interesting, and some that's disturbing. Developments in this western region may have strong impact on the price you pay for alfalfa seed, and even whether you can find seed to buy next spring and in the springs to come.

Most important to you is the fact that alfalfa seed is likely to be scarce and high-priced for a long time. In fact, prices may never return to the lower levels of a year or two ago. Prices for other crops are skyrocketing, and growers are shifting to better-paying alternatives.

Those staying with alfalfa seed are fighting increased insect problems that seriously reduce yields. Often they're hampered by stiffening restrictions on the pesticides they can use. And to top it off, European and Japanese seedsmen are making large purchases of U.S. alfalfa seed, helping to push prices upward.

California, long the nation's leader in alfalfa seed production, dropped nearly 20 percent in acreage last year, and will go down another 20 percent this year. Cotton, normally grown in rotation with alfalfa seed, has jumped in price so growers are seeding alfalfa less often.

Tomatoes, grapes, vegetables, grain crops . . . you name it . . . prices are all up, and alfalfa prices must go up too if it's to be grown at all. Several huge producers dropped alfalfa seed altogether this year; others planted less acreage. This trend will continue unless there's a sizable bump upward in alfalfa seed prices.

The crops are different, but the situation is the same in the Northwest states. Oregon, Idaho and Washington are the leading producers of varieties used in the Northeast (for instance, Saranac and Iroquois). Here, prices for potatoes, onions, sugar beets, hops, wheat, even alfalfa hay are all going through the roof, and alfalfa seed acreage is hurting accordingly. Signs of the times are prices now being offered to growers for fall delivery of alfalfa seed at **twice** the levels of a year ago . . . and finding few takers.

The same picture appears true in Nevada, where alfalfa seed production could expand, if the prices were right. High prices for wheat and barley are stiff competition in this state, where big returns are necessary to cover irrigation costs.

Bug problems are adding to the negative picture throughout this western region, with too many of the bad ones and not enough of the good. Chief offenders are Lygus plant bugs, which, among other things, eat flowers before they can set seed. These are particularly tough to control in California and have reduced yields severely the past several years.

The alfalfa weevil is present throughout the region and seed producers must spray. Nematodes (microscopic, worm-like creatures) attack both stems and roots of susceptible varieties and reduce yields. The spotted alfalfa aphid, another western creature that we hope stays west, can reduce seed yield and quality.

Pollinators

Shortages of pollinating insects also hurt production. Bees are needed to carry the pollen from plant to plant, to fertilize alfalfa flowers before they can set seed. Honey bees have never done this job well in alfalfa, preferring almost any other kind of flower. Extensive bee-breeding efforts have failed to come up with a strain of honey bee to successfully pollinate alfalfa on the scale needed for top seed production.

Best pollinators in the west have been the leaf-cutter bees, a newly-domesticated species. These have done an outstanding job and northwestern growers have established leaf-cutter colonies throughout their alfalfa fields. A few enterprising farmers have even developed a profitable sideline, raising and selling many thousands of dollars worth of bees for their neighbors.

But now the leaf-cutters are in trouble as bee parasties and diseases are multiplying. Pesticide drift from air spraying in nearby vegetable

AGWAY FARM ENTERPRISE SERVICE AGWAY

To put more protein in your forage...and to keep milk production up...

TOPDRESS YOUR ALFALFA WITH AGWAY ALFA B.

Maintaining top milk production takes plenty of top quality protein. And there is no more economical source of protein than your own high-yielding alfalfa fields. But high production of alfalfa draws heavily on soil nutrients such as potash and boron.

To replace these critical nutrients and to give your alfalfa that all-important midsummer boost, topdress with Agway Alfa B, 0-10-40 WB fertilizer. A good time to do it is right now—just after second cutting.

Alfa B is a low-phosphorus, high-potash-plus-boron fertilizer. By using it as a topdressing after second cutting, you'll get a thicker, heavier stand for your later cuttings. And, equally important, the high potash content of Alfa B will give you tougher, deeper-rooted plants to stand up to next winter and start early and strong again next spring.

Your Agway Dairy Enterprise Salesman has all the details. Talk to him about Agway Alfa B fertilizer and how it can help keep your protein-rich alfalfa producing high.



fields also takes its toll. As a result, pollination suffers and yields go down.

Many western farmers have also established colonies of so-called alkali bees. These nest in holes in the ground and prefer dry alkali beds for this purpose. Many alfalfa seed growers have developed artificial beds and installed the colonies. Once again, these come expensive and many thousands of dollars change hands in trading for these bees for bed establishment.

But alkali bees aren't always reliable. They stay in their holes during cold weather, even when alfalfa is in flower. And pesticide drift has wiped out many valuable beds.

Western growers must solve their pollinator problems if they are to get alfalfa seed production back on track. Growers, bee men, and entomologists are all trying hard to find solutions. However, no one I talked to was optimistic that matters would improve, at least in the short run.

At the same time that alfalfa seed production has run into snags, we're seeing expanding worldwide demand for U.S. alfalfa seed. In the Northeast alone, we have doubled our seed use over the past five years. Japan is buying American alfalfa seed and this year the Europeans bought large supplies of Vernal and other U.S. varieties. This increased demand, coupled with reduced U.S. production, has brought about a worldwide seed shortage and accompanying high prices.

Looking ahead, it's tough to see much improvement. World demand should remain strong . . . in fact, it may increase as more nations boost livestock production to upgrade diets.

On top of all this, California producers ran into a poor planting season this year, with heavy rains keeping them out of the fields. (Yes, it does rain in California.) Much of this acreage will go into other crops and probably will never be planted to alfalfa.

To sum up, alfalfa seed must compete in cash returns to the farmer who grows it or he'll grow something else. Western farmers can now do very well, thank you, with a wide range of fiber, vegetable and food crops. This could change, of course, if we move back into crop surpluses. But this will be several years off, at best.

Red clover and timothy seeds may also continue high-priced and in short supply for the same reasons, though they are produced in different parts of the country. Major production areas for these crops are in the midwest where prices of corn and soybeans are soaring. As a result, many Cornbelt farmers are plowing out clover and grass acres to shift to grain. Here again, projections show no letup in this trend for years to come.

Smooth bromegrass supplies are in better shape right now, but the same factors are pressing in on seed supplies of that crop.

If alfalfa seed is short out west, how about producing it in the Northeast? Unfortunately, this won't work. Alfalfa seed production requires plentiful water, but needs careful timing of water application. Rain at the wrong time can destroy a seed crop overnight.

Honey bees, our only adapted eastern pollinators, have never found alfalfa appetizing and will fly right over it to get to other flowering crops or weeds. For this reason, nearly all of the alfalfa seed production is west of the Mississippi . . . and most high-yield crops, producing high-quality seed, are in irrigated areas.

In some years, a few northeastern farmers may let an alfalfa crop set seed and harvest what's there, but yields of only 100 to 150 pounds per acre are high. This compares with yields of 500 to 800 pounds per acre (many growers beat 1,000 pounds per acre) in the Pacific Northwest.

Alfalfa will still be our highest-yielding perennial forage crop, despite high seed prices. And, it should continue to find increasingly wide usage as Northeast farmers move toward high-return crops. Even at increased prices, the cost of seed will remain a small fraction of the total growing cost for your crop.

We will continue to monitor western supplies and growing conditions, and keep you informed about developments as they occur.

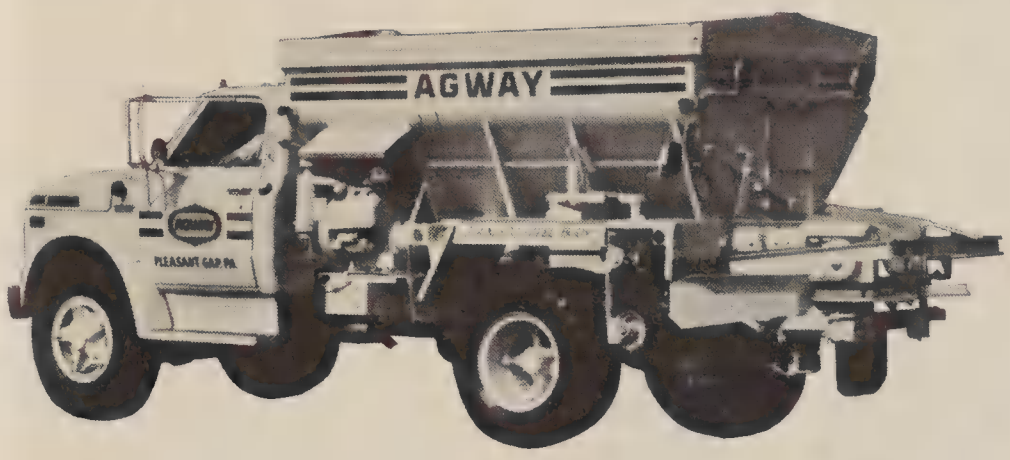
Why not put aside some of your best corn, forage or small grain to exhibit at the New York State Fair in Syracuse, August 28 through Labor Day. No entry fee is required, and you might win a cash prize or ribbon. For information, write to: Robert C. Watson, Superintendent, Forage and Grain Department, New York State Fair, Syracuse, New York 13209.



Here's the New York State Farm Family of the Year, named by the Farmers Home Administration . . . James and Brenda Fouts of Freeville with children (l to r) Dean, Sharon, Kevin, and Michael and Keith in front.

AGWAY FARM ENTERPRISE SERVICE

AGWAY CERTIFIED SPREADER SERVICE



The easy, accurate way to topdress your alfalfa.

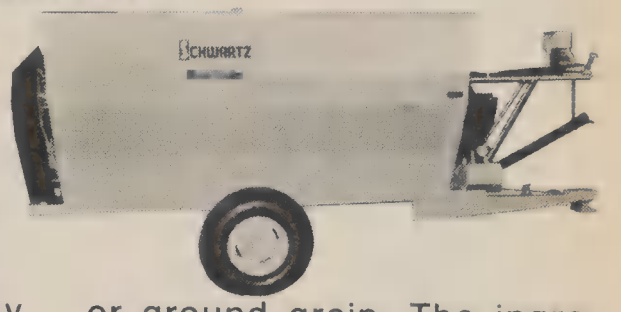
When Agway does the job, you can be sure of getting an accurate, even application, so every pound of plant food works at growing alfalfa. That's because Agway fertilizer and lime spreading equipment is checked and inspected at Agway regional clinics before certification.

Agway tests and evaluates spread patterns at regular intervals. Then makes necessary corrections and repairs. Only when everything is right does Agway spreading equipment get the certification seal that assures you a uniform spread.

So call Agway soon and arrange for an application of Alfa B right after you make your second cutting. Now is also a good time to apply lime on sod going into corn or alfalfa in '74. Agway certification clinics are being held beginning this month. If you'd like to see how they operate, contact your local Agway to find out the place and the time in your area.

Is inefficient mixing short-changing some of your cows?

A SCHWARTZ FEEDER WAGON ASSURES UNIFORM BLENDING— NO MATTER WHAT THE RATION



Unless they're thoroughly mixed, the silage, supplements and grain you're putting into your ration may not do the job you mean them to do. Some cows may be getting short-changed on certain feed components. Others may be overfed.

The Schwartz Feeder Wagon has been evaluated by Agway and chosen for its superior mixing ability. Triple augers tumble the feed and turn it end to end to perfectly blend liquid, granular or pelleted supplements into silage, chopped ha or ground grain. The ingredients can be thoroughly mixed in five to seven minutes. So every cow gets the same ration every time you feed.

Controls are convenient—and positive. Construction has been carefully engineered to give you a box that will assure both complete mixing and trouble free operation day-in and day-out. The Schwartz wagon is available in three sizes. One of them will be right for your operation. Ask Agway for a demonstration and see for yourself.

1973 FAIR DATES

MASSACHUSETTS

Brocton Fair, Raynham	June 25 – July 4
Barnstable County Fair, Falmouth	July 26 – 29
Littleville Fair, Chester	Aug. 3 – 5
Highland Fair, Middlefield	Aug. 10 – 12
Martha's Vineyard Fair, West Tisbury	Aug. 16 – 18
Westfield Fair	Aug. 17 – 19
Marshfield Fair	Aug. 18 – 26
Hillside Fair, Cummington	Aug. 24 – 26
Weymouth Fair, Foxboro	Aug. 25 – Sept. 3
Spencer Fair	Sug. 31 – Sept. 3
Rehoboth Fair, Dighton	Sept. 1 – 9
Union Fair, Blandford	Sept. 1 – 3
Hampshire, Franklin and Hampden Fair, Northampton	Sept. 2 – 8
Foxboro Fair	Sept. 6 – 16
Franklin County Fair, Greenfield	Sept. 7 – 10
Barrington Fair, Great Barrington	Sept. 9 – 15
Eastern States Exposition, West Springfield	Sept. 14 – 23
Essex Fair, Topsfield	Sept. 29 – Oct. 8
Berkshire County Fair, Hancock	Oct. 31 – Nov. 5

PENNSYLVANIA

Cameron County Fair, Emporium	July 9–14
Jefferson County Town and Country Fair, Sykesville	July 16–21
Lycoming County Fair, Hughesville	July 16–21
Kimberton Fair, Phoenixville	July 18–26
Shippensburg Community Fair	July 22–28
Troy Free Fair	July 23–28
Butler County Fair, Butler	July 23–28
Plainfield Farmers Fair, Pen Argyl	July 25–28
Jefferson Township Fair, Mercer	July 26–28
Clarion County Fair, New Bethlehem	July 29–Aug. 4
Goshen Country Fair, West Chester	July 30–Aug. 4
Clearfield County Fair, Clearfield	July 30–Aug. 4
Fayette County Fair, Uniontown	July 30–Aug. 4
Morrison Cove Dairy Show, Martinsburg	July 31–Aug. 3
Jacktown Fair, Wind Ridge	July 31–Aug. 4
Mercer County Grange Fair, Mercer	Aug. 1–4
Great Allentown Fair	Aug. 3–12
Great Bedford Fair	Aug. 6–11
McKean County Fair, Smethport	Aug. 6–11
Warren County Fair, Youngsville	Aug. 6–11
Great Dallastown Fair	Aug. 6–11
Wayne County Fair, Honesdale	Aug. 6–12
Butler Farm Show	Aug. 7–11
Greene County Fair, Waynesburg	Aug. 7–11
Potter County Fair, Millport	Aug. 7–11
Union County West End Fair, Millmont	Aug. 7–11
Cochranton Community Fair	Aug. 8–11
New Stanton Fair	Aug. 8–11
Delaware Valley Fair, Milford	Aug. 9–11
Washington County Free Fair, Washington	Aug. 12–18
Dayton Fair	Aug. 13–18
Carlisle Fair	Aug. 13–18
Middletown Community Fair	Aug. 13–18
Mountain Area Community Fair, Farmington	Aug. 13–18
Huntingdon County Fair, Huntingdon	Aug. 13–18
Lebanon Area Fair, Lebanon	Aug. 13–18
Lawrence County Farm Show, New Castle	Aug. 14–18
Rostraver Township Community Fair, Belle Vernon	Aug. 15–17
Venango County Fair, Franklin	Aug. 15–18
Harrold Fair, Greensburg	Aug. 15–18
Middletown Grange Fair, Wrightstown	Aug. 16–18
Westmoreland County Fair, Greensburg	Aug. 18–25
Carbon County Fair, Lehighton	Aug. 19–25
Kutztown Fair	Aug. 20–25
Crawford County Fair Meadville	Aug. 20–25
Bullskin Township Community Fair, Connellsville	Aug. 20–25
Franklin County Fair, Marion	Aug. 20–25
Fulton County Fair, McConnellsburg	Aug. 20–25
Somerset County Fair, Myersdale	Aug. 20–25
Harford Fair	Aug. 20–25
Tioga County Agricultural Fair, Wellsboro	Aug. 20–25
Adams County Fair, Abbottstown	Aug. 21–25
Transfer Harvest Home Fair, Transfer	Aug. 21–25
Montour-DeLong Community Fair, Washingtonville	Aug. 21–25
Blue Valley Farm Show, Bangor	Aug. 21–25
Hookstown Grange Fair	Aug. 22–25
Wolf's Corners Fair, Tionesta	Aug. 22–25
Perry County Community Fair, Newport	Aug. 22–25
Allegany County Fair, Pittsburgh	Aug. 22–26
Centre County Fair, Centre Hall	Aug. 24–30
Wattsburg Fair	Aug. 27–Sept. 1
Indiana County Fair, Indiana	Aug. 27–Sept. 1
Scott Township Community Fair, Olyphant	Aug. 28–31
Sewickley Township Fair, West Newton	Aug. 28–31
West End Fair, Gilbert	Aug. 28–Sept. 1
Sullivan County Fair, Forksville	Aug. 28–Sept. 1
Greene-Dreher-Sterling Fair, Newfoundland	Aug. 28–Sept. 1
Big Knob Grange Fair, Rochester	Aug. 29–Sept. 1
Reading Fair	Aug. 29–Sept. 3
Great Stoneboro Fair	Aug. 30–Sept. 3
Bear Lake Community Fair	Aug. 31–Sept. 3
Juniata County Fair, Port Royal	Sept. 1–8
Cambria County Fair, Ebensburg	Sept. 3–8
Waterford Free Fair	Sept. 3–8
Ox Hill Community Fair, Home	Sept. 3–8
South Mountain Fair, Arendtsville	Sept. 4–8
Spartansburg Community Fair, Spartansburg	Sept. 5–8
Pymatuning Community Fair, Jamestown	Sept. 5–8
Economy Grange Fair, Baden	Sept. 6–8
Dallas Area Fall Fair	Sept. 7–9
Green Township Community Fair, Commodore	Sept. 10–15
Albion Area Fair	Sept. 11–15
West Alexander Fair	Sept. 11–15
York Inter-State Fair	Sept. 11–15
Greenfield Township Fair, Claysburg	Sept. 13–15
Gratz Fair	Sept. 16–22
Williamsburg Farm Show	Sept. 17–20
Bellwood-Antis Farm Show, Bellwood	Sept. 18–20
Beaver Community Fair, Beaver Springs	Sept. 18–22
Southern Lancaster County Community Fair, Quarryville	Sept. 19–21
Harmony Grange Fair, Westover	Sept. 19–22
Berlin-Brothersvalley Fair, Berlin	Sept. 19–22
North East Community Fair	Sept. 20–22
Bloomsburg Fair	Sept. 24–29
Morrison Cove Community Fair, Martinsburg	Sept. 25–28
Oley Valley Fair, Oley	Sept. 25–29
Ephrata Fair	Sept. 25–29
West Lampeter Community Fair, Lampeter	Sept. 26–28
Sinking Valley Farm Show, Altoona	Sept. 27–29
New Holland Farmers Fair	Oct. 3–6
Tri-Valley Community Fair, Hegins	Oct. 4–7
Hollidaysburg Community Fair	Oct. 8–11
Manheim Community Fair	Oct. 10–12
Unionville Community Fair	Oct. 10–13
Dillsburg Community Fair	Oct. 18–20
Uniontown Poultry Show	Nov. 23–25
Pennsylvania Farm Show, Harrisburg	Jan. 7–11, 1974

AGWAY FARM ENTERPRISE SERVICE

AGWAY

July pasture may deliver the bulk, but not the protein.



By now your pastures have reached a maturity level that could leave your cows short on protein. The bulk and energy may be there, but not the protein.

The simplest and the most economical way to make up the difference is with Agway Liquid Protein Supplement—LPS.

Once you have an Agway LPS feeder, you don't have to worry about keeping it filled. Delivery is automatic. Or, you can set up your own bulk storage tank.

Either way, you've got a system that assures adequate protein for each cow, whatever her individual requirement.

It's the sensible way to feed protein. Agway LPS is formulated so that each cow can balance her needs.

Don't let the summer protein slumps cut into your milk check. Ask Agway to set up an LPS feeding program for your herd.



MS. COUNTY AGENT

You state that Kathryn Brown is the first female county agricultural agent. She may be the first with the title "cooperative extension agent — agriculture" but Rhode Island had a female "county agricultural agent" (perhaps "acting," I'm not sure) before I retired from extension in 1970.

I think it was in 1969 that Edna Colliander was county agent in our Southern Rhode Island district and did a good job too. County agent John Hannah was on sick leave for about a year; Edna filled in part of the time. Her background was much like Ms. Brown's. — *George Bond, Kingston, Rhode Island 02881.*

GRAIN TANKS

Concerning the letter about using old gas tanks for grain storage:

1. I have welded and brazed gasoline and fuel tanks after running the exhaust of an auto, truck or tractor via metal hose into the tank for a few minutes, and leave engine running while welding. While carbon monoxide will burn under certain conditions, it will reduce the oxygen inside the tank to such low levels that ignition of contents is unlikely.

2. While using old tanks for storage is a good way to recycle them, there is the possibility of lead pollution of the contents. Perhaps a thorough steaming would help, but maybe a chemical analysis would be better . . . especially in the case of feed grains and seeds. — *Fred Drost, Owego, New YOrk.*

GRANGE CHANGE

I have been an active member of the Grange for over 40 years, so have some knowledge and experience of its decline in membership. Here are my suggestions for improvement:

1. Streamline admittance into the Grange (other organizations sign them up and get them in). We're living in the past, we must get with the "now" or be buried. Two to four months is too long to wait to get into the Grange. Carting new members to other Granges for degrees usually means that they end up not coming or entering the hall of their membership. Degrees, if used, should be completed in one night.

2. Dues should be increased, but in a family-unit plan. One set price per family — other organizations do this. Offer something **substantial** to want to make people join the Grange . . . percentage on costs to members for feed, tires and insurance.

3. A new program for youth. They are the backbone of any organization; without them there is no tomorrow. Sponsor snowmobile clubs, square dance groups, etc. Have noted speakers on farm problems, county gatherings like other farm organizations at well-known restaurants . . . with a social hour before the dinner. Get together with top legislative members, meet with them. Sponsor a Farm-City Week. Strive for ecumenical movement with other rural organizations.

We must stop living in the past and live in the present; our churches have shown change to hold the youth (even if some of us disapprove). Don't have your meetings like a wake, let's bring the Grange back to what it once was!

We have so much to offer. We need more publicity in newspapers, on radio and TV. Let's not be afraid to promote our good product, the Grange.

4. Meetings should be streamlined, and we should have more open meetings. Good members have been lost because they say too much time is devoted to floor work.

5. Deputies on their official visits show no enthusiasm. This leaves no new ideas, no pep talk, no "get out and get those new members." State or national workers should rebuild struggling Granges; someone from outside does a better job of it.

6. Fewer contests, but more outstanding ones.

7. Have something for the older members. They brought the Grange a long way for years, and should not be forgotten in the "golden years" of their life. Sponsor senior citizen clubs and tours for them within the county.

8. Have contest to get new members within counties in the state. Give something outstanding for it, publicize it, have the winners' pictures in the papers. — *Mrs. Helen Robbins, Schuylerville, New York.*

ACTIVE GRANGE

The Grange of Camden, New York is not ready to be buried yet! Our Grangers range in age from 35 to 81, and all are ready to go.

We visit other Granges in the state. Last year, 18 Grangers took a trip to Pennsylvania Dutch country and everyone enjoyed it very much. We are planning another bus trip this year.

We have joined in every project the Grange has offered. We got first prize on our window display in Oneida County. Our lecturer has very interesting programs, and won first prize with her singing and guitar playing.

Our young people's group, called County Cousins, put on a play and have done very well. Five of our members have been to Hawaii. So you see our Grange gets around and away.

Let the young Grangers buy campers. It's their privilege to come and go, but when they get a few more years on their heads they will be glad to come back home and be glad they still have the Grange. Some people would rather stay home and complain than go, as we all well know.

The Grange in Jackson, New Jersey may be old, tired and gray . . . but the Grange in Camden, New York is old, lively and gay. — *Mrs. Harold Suits, Camden, New York.*

AGWAY FARM ENTERPRISE SERVICE

AGWAY

ROY CHRISTMAN, HAMBURG, PENNSYLVANIA.

ChemStor treated high-moisture corn and saved $6,000 per year by eliminating weekly grinding costs and labor.



Roy Christman stored his corn at 28% moisture for 6 months on a barn floor lined with plastic. The ChemStor method made it possible.

Roy and his two sons, Ronald and Barry, milk 320 dairy cows in their operation, raise 400 replacements and feed out 150 to 200 steers each year. The efficiency of his operation depends heavily on homegrown feeds. ChemStor helps him make the most of them.

Untreated high-moisture corn is fed from two concrete silos until about April. "To do this," he says, "you must be able to feed out enough corn each day—even in the winter—so the corn won't mold."

Through the summer he feeds the treated corn through his automatic grinding and feeding system. Treated grain handles as easily as shelled corn.

The ChemStor method allows him to continue a high-moisture program year-round, without dips in herd production. The Christman cows continue high production through the change to ChemStor treated grain.

Roy's experience with ChemStor has convinced him to stay with it both for harvest flexibility and efficiency of operation.



ChemStor offers you new flexibility in harvesting, handling and feeding.

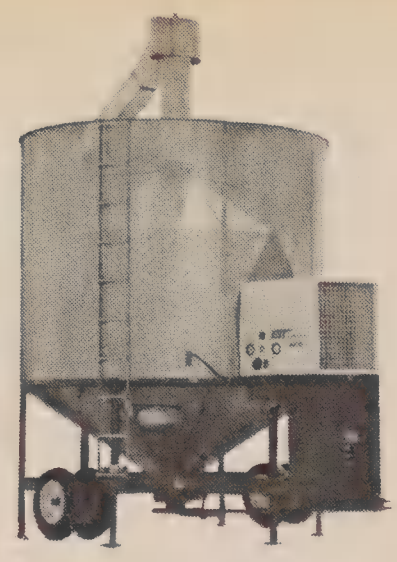
The extra 2 to 4 weeks gained by early harvesting could save your crop from bad weather. You can harvest at most any time—at the same high-moisture levels used in air-sealed silos.

No more drying delays. High-moisture or not, your grain goes directly from field to storage. Almost any place can be used to store high-moisture grain treated with ChemStor. It stays fresh and palatable.

Farmers who applied ChemStor last fall report excellent results. In fact, they say it actually enhances palatability. The silage-like aroma attracts the animals and keeps them on feed during ration changes. And since it contains the same organic acids that occur naturally in rumens, it can't diminish or alter nutritive value.

The ChemStor method offers a number of economic and handling advantages. See what it can do for your operation. Contact your Agway Enterprise Salesman.

FUEL SAVER



GT Tox-O-Wik grain dryers are known for their low maintenance costs and economy of operation. Todays fuel not only is costly it is likely to be scarce, however many GT Tox-O-Wik owners indicate the fuel economy of a GT Tox-O-Wik to be as much as 30% to 50% less than other makes of dryers.

And while you're saving on fuel with GT Tox-O-Wik you dry fast — automatically, is easier to operate, most reliable, dries more efficiently and is completely portable.

RUSH COUPON FOR FREE INFORMATION

GT GILMORE-TATGE MANUFACTURING CO., INC. CLAY CENTER, KANSAS 67432
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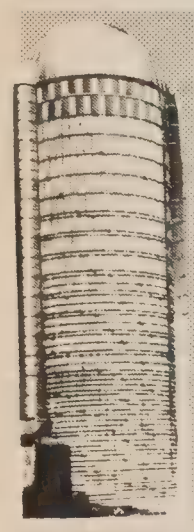
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— Empire Farm Days August 7, 8, 9 —

Dates to Remember

July 8 - NY Swine Improvement Cooperative Annual Field Day, Fairgrounds, Penn Yan, N.Y.

July 12-13 - Summer Meeting Empire State Soil Fertility Association, Airways Leisureland Inn, Hamburg, N.Y.

July 14 - New York Senior and Junior Hereford Association Field Day, Donald's Mountain, Roscoe, N.Y.

July 15 - NY Ayrshire Club Annual Field Day, Marshall Cheeseman Farm, Ellenburg Depot, N.Y.

July 15 - New England Premium Dairy Goat Sale, sponsored by Maine Dairy Goat Council, Fairgrounds, Windsor, Me.

July 16-17 - Eastern Regional Junior Angus Heifer Show and Judging Contest, Harrisonburg, Va.

July 17 - All-American Junior Shorthorn Heifer Show, State Fairgrounds, Springfield, Ill.

July 27-29 - Annual Reunion Pioneer Gas Engine Association, Fairville, N.Y.

July 30-31 - New York State Maple Tour, Chenango County, N.Y.

Aug. 3-4 - Annual Craft Fair, Northern New York Agricultural Historical Museum, Rt. 180, Stone Mills, N.Y.

Aug. 4 - 7th Annual Sauerkraut Festival, Phelps, N.Y.

Aug. 4 - Nutmeg of Virginia Production Sale, at farm of Ed and Dolores Shurick, Charlottesville, Va. Buzz Garey, Sales Manager.

Aug. 4-10 - NYS Craftsmen's Fair, Terrace Dining Hall, Ithaca College, Ithaca, N.Y.

Aug. 6-9 - Annual National Institute on Cooperative Education, Tulane University, New Orleans, La.

Aug. 7-9 - Empire Farm Days, Cornell Research Farm, off Rt. 38, south of Dryden, N.Y.

Aug. 8 - Annual Plant Science Day, Lockwood Farm, Hamden, Conn.

Aug. 9-10 - Annual Pageant of Steam, Canandaigua, N.Y.

Aug. 12-15 - Annual Convention National Association of Animal Breeders, Marriott Hotel, New Orleans, La.

Aug. 14-18 - 4th Annual Shorthorn Show, Sandy Creek Fair, Sandy Creek, N.Y. Judging Aug. 17 a.m. by Clarence Worden.

Aug. 15-19 - NYS Woodsmen's Field Days, Boonville, N.Y.

Aug. 19-22 - Annual Meeting American Society for Horticultural Science, North Carolina State University, Raleigh, N.C.

Aug. 19-22 - 64th Annual Meeting Northern Nut Growers Association, Franklin and Marshall College, Lancaster, Pa.

Aug. 21-22 - Annual Stockholders Meeting, Springfield Bank for Cooperatives, Baystate West Motor Hotel, Springfield, Mass.

Aug. 25 - Central Maine Egg Festival, Pittsfield, Me.

Aug. 28-30 - Agricultural Progress Days, Milton Hershey School Farms, Hershey, Pa.

Aug. 28-Sept. 3 - New York State Fair, Syracuse, N.Y.



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Horse judging contest

THE February, 1973 issue of AMERICAN AGRICULTURIST published 5 classes, and invited readers to participate in a pictorial horse judging contest. There were 3712 entries, and 403 of them scored 200 or more (250 is a perfect score).

The cutoff date for entries was announced as May 1, 1973. A number of entries were postmarked after midnight of that date, and therefore were not considered for award competition.

Winners (those scoring 200 or more) are:

CONNECTICUT

Paula Brinton, Coventry
Jeff Brissetle, Manchester
Susan Broughton, Groton Long Point
Mrs. Clifford Congdon, Middletown
Elizabeth W. Couch, Coventry
Donna Esty, Old Saybrook
Patti Garthwaite, Windsor
Grace Harmon, Middletown
Norma LeGeyt, Warehouse Point
Susan Porter, Hebron
C. Albert Pratt, Noroton
E. P. Redder, Jr., Bridgeport
Nancy F. Welles, Wethersfield
Mrs. Frances Wilson, Falls Village
Kevin Woolam, South Windsor
Kim Woolam, South Windsor

DELAWARE

Debbie Martin, Milton
Lynn Perrine, Clayton
Karen Sue Powell, Hartly
Holly Williams, Wilmington

MAINE

Mrs. Jacqueline Dunbar, Bucksport
Molly Dunbar, Bucksport
Alice Gallison, Bangor
Pamela Gray, Bucksport
Holly Miller, Mt. Vernon
Colleen O'Connor, Buckfield
Luann Wasson, Bucksport
Lisa Wiley, Bangor

MARYLAND

Beverly Abbott, Finksburg
Melani Abbott, Finksburg
June Andrade, Clinton
Becky Driver, Prince Frederick
Leah Jane Hadley, Rawlings
Kathleen Hoying, Clinton
Kelle Kipp, White Hall
Mrs. K. L. Melin, Patuxent
Jo-Ann Papp, Temple Hills
Jane E. Polle, Frederick

MASSACHUSETTS

Lindsey Babine, Marblehead
Andrea Brown, Marblehead
Cindy Brown, Leverett
Sherry Campbell, Agawam
Carrie Chickering, South Deerfield
Andrea J. Dacko, Mattapan
Ginny Drew, Marblehead
Betsy Farrell, Marblehead
Arlene Full, Marblehead
Sharon Gosselin, North Dartmouth
Alice M. Hale, Lee
Martha Jannell, Marblehead
Sherry L. Lingner, South Williamstown
Margaret Mellen, Ashland
Debbie Nunes, Mattapoisett
Arthur Parker, Jr., Westford
Kathleen Peura, Montague Center
Patricia Phelps, Raynham
Betty Prinz, South Lee
Debbie Sannes, South Dartmouth
Judy Suhl, Montague
Marylu Taylor, West Barnstable
Lorri Ventura, Raynham
Mrs. Yvonne Wirtes, Lanesboro
Sandra Wolffe, South Easton
Beth Wood, Halifax

NEW HAMPSHIRE

Sally Ann Chickering, Westmoreland
Jacqueline Dwyer, Mont Vernon
George J. Hartwell, Piermont
Nancy Heath, Ossipee
Eileen Keller, Franklin
Ellen Jean Kelly, Salem
Phyllis Reade, Weare
Nancy Shonbeck, Westmoreland
Ian Silitch, Dublin
Tracy Jean Smith, Walpole
Ann Stockwell, Concord
Scot Tolman, Winchester
G. B. Worcester, Hollis

NEW JERSEY

J. M. Belcher, Far Hills
Joan Freitas, Westville
Becky Hellyer, Gladstone
Gladys Henry, Bridgeton
Susan G. Hetzel, Washington
Ethel Hunt, Hampton
Sue Hunt, Hampton
Susan Johnson, Holmdel
Robin Kirker, Montvale

(Continued on page 18)

TOP SCORES

The 17 contestants with top scores, each of whom received a special trophy, are as follows:

Kelli Adams
Rome, New York
Barbara Beetow
Springville, New York
Sherry Campbell
Agawam, Massachusetts
Mrs. Burtis Chrisman
Poland, New York
Lynor Clair
State College, Pennsylvania
Elizabeth W. Couch
Coventry, Connecticut
Mary Dedrick
Belfast, New York
Mrs. C. Hinterberger
East Aurora, New York
Kathy Libby
New Woodstock, New York
Diane Orser
Weedsport, New York
Sheila Ortlieb
Martinsburg, New York
Gene Pask
Alden, New York
Harriet Rudderow
Moorestown, New Jersey
Mariane Steidle
Hunt, New York
Kathleen Taylor
Ilion, New York
Denise Van Poortvliet
Cassadaga, New York
Lorri Ventura
Raynham, Massachusetts

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Mr. Nowatzski is served by Fox Valley Harvestore, Inc., Appleton, Wisconsin.



Joe Barta, Perkins, Oklahoma
"Our Harvestore high moisture grain units are saving us $1,091.00 per month plus our butterfat test is up 3 points.
We spent more for commercial feed from January 1 to April 15 than we did for high moisture grain from April 15 to December 31 and we carried more cows. Our teenage son can feed about 150 head in only 20 minutes per feeding."
Mr. Barta is served by Edwards Equipment Company, Ponca City, Oklahoma.



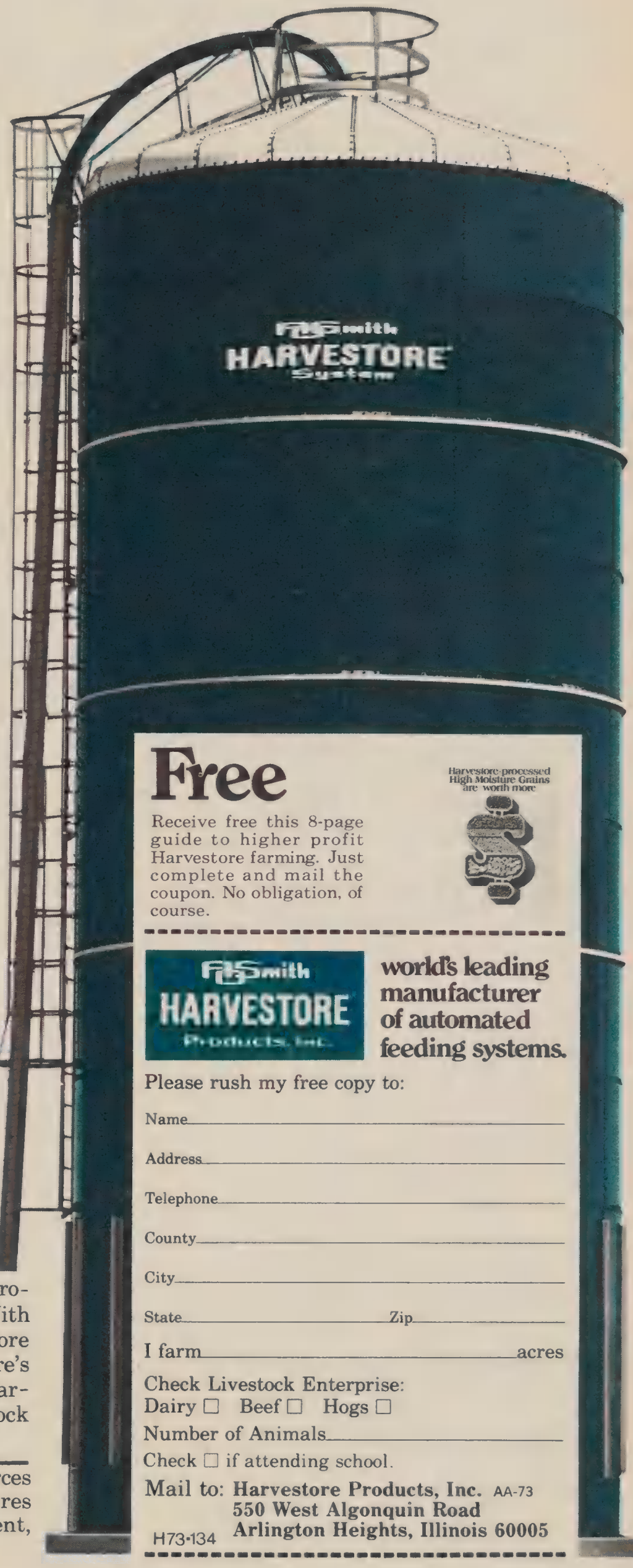
Jack and Jerry Kanach, Ringoes, New Jersey
"Harvestore high moisture corn cut our purchased feed costs in half and we now milk twice as many cows.
It used to cost us $800 per month for custom grinding and protein for 80 cows. Supplement for 160 cows is now only $400 per month. We're getting better production and Harvestore feeding has allowed us to increase butterfat from 3.5% to 4.0%."
Jack and Jerry Kanach are served by Penn-Jersey Harvestore Systems, Inc., New Holland, Pennsylvania.



Bill Jones, Philpot, Kentucky
"The expense of hauling corn to the feed mill for drying and storage used to eat up our milk check.
Now I store corn at high moisture in my Harvestore. Wet corn is more palatable and cows produce better on it. Last year we ran short of corn because of the blight and production dropped, but it went up again when we resumed feeding high moisture corn."
Mr. Jones is served by K-T Harvestore Systems, Guthrie, Kentucky.

Now balance the costs of drying and bin storage against the advantages of processing grain at high moisture through an automated Harvestore System. With Harvestore, you harvest early, when your grain has more feed value and before weather and lodging take their toll. Grain goes from field to structure. There's less handling, less labor, no drying cost, no shrinkage. Mildly fermented Harvestore high moisture grain is highly nutritious and palatable, too. Livestock thrive on it.

The information contained herein is general in nature and is drawn from sources deemed to be reliable. Any application to a particular farming operation requires the advice of qualified experts and is subject to limitations of good management, weather and other conditions present at the individual location.



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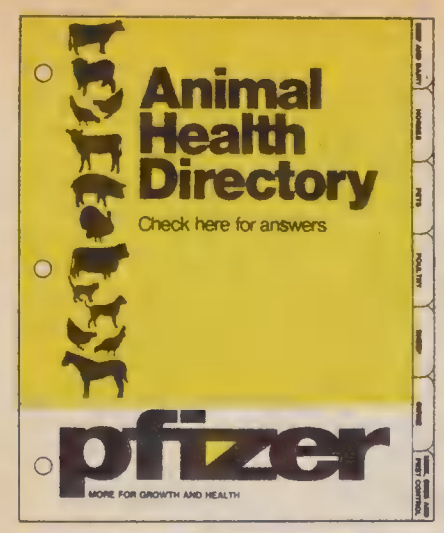
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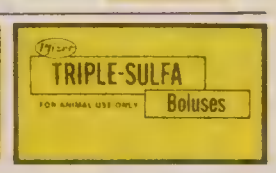
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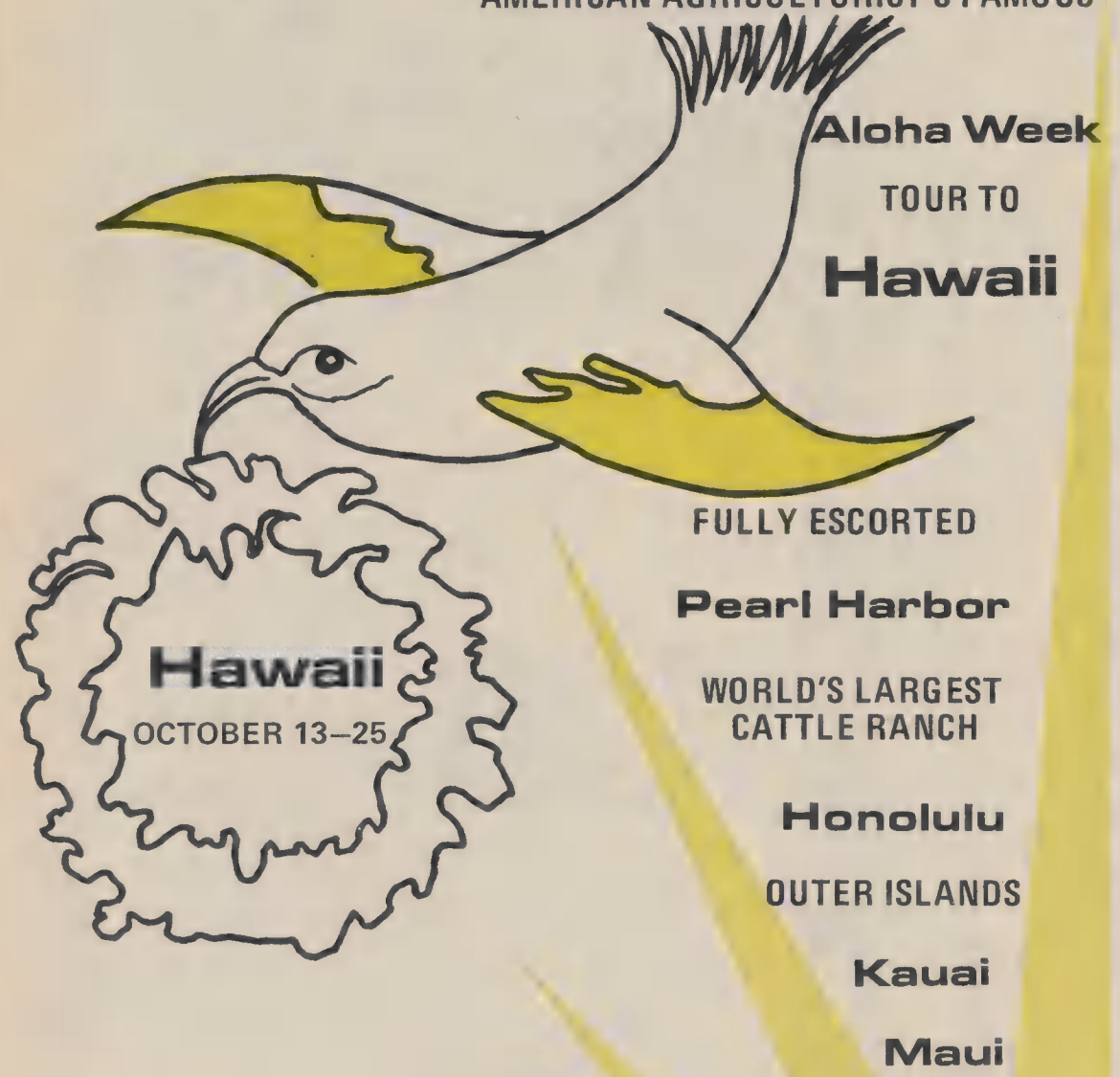
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Sharon Crispell, Slaterville Springs
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Mary Dedrick, Belfast
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Carlton Dibble, East Worcester
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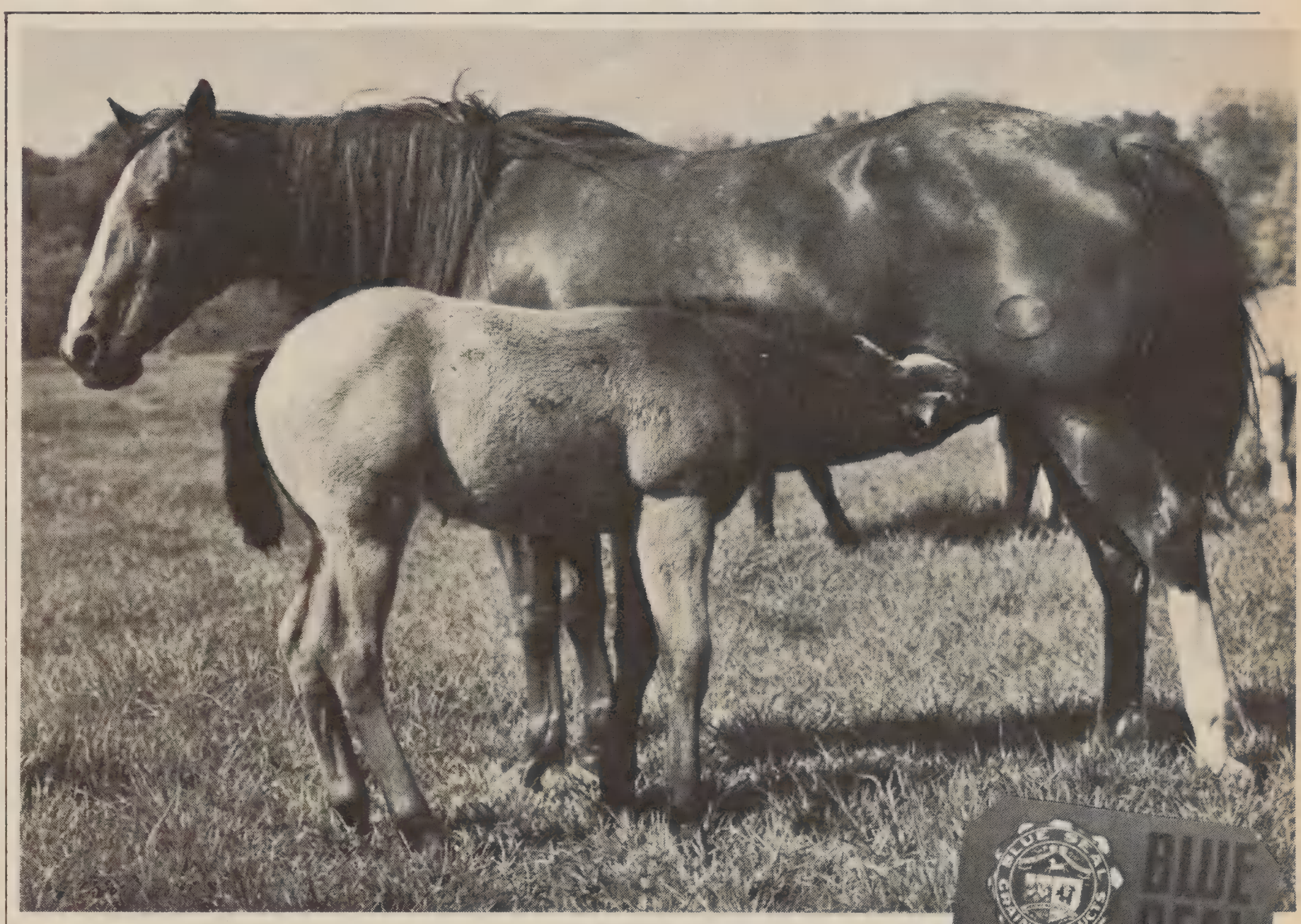
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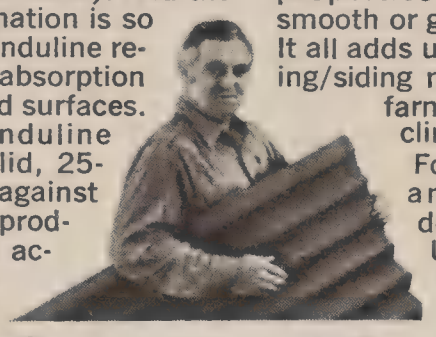
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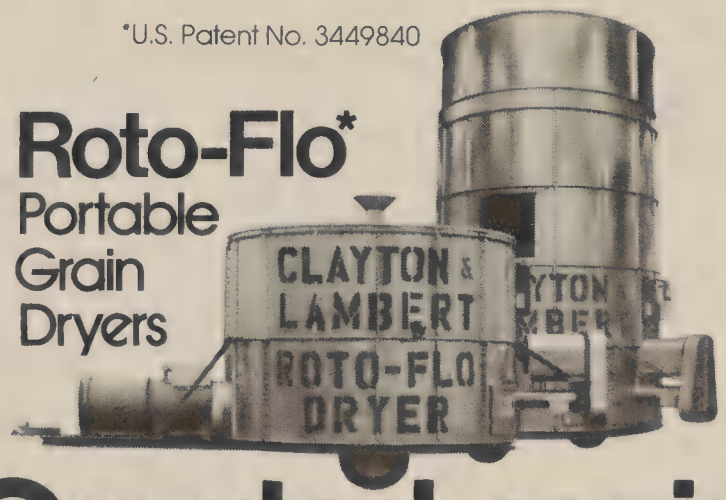
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Empire Farm Days

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ECONOMICAL BARN

Julian Hager of Bloomville (Delaware County), New York, has been using for three years a freestall "cold" barn constructed at rock-bottom cost. It measures 154×42 feet, plus an "ell" 42×50 . . . with 67 freestalls in the main part, milking parlor in smaller section.

Galvanized steel forms the exterior sidewalls, as well as the roof. Rafters are laminated wood, referred to as the "tied-arch" type. A bunker silo which can hold about 1,000 tons is rigged with a self-feeding gate (pushed forward each day by the tractor scraping the barn) so cows eat their way into the silage pile. No hay is stored at the main barn . . . Julian buys the hay fed to the milking herd.

Economical

Julian reports a total expenditure of $25,000 for materials and hired labor in the barn and bunker silo. "There's also a lot of help by neighbors, for which I'm very grateful," he comments. "We contracted out the concrete work, and the block-laying . . . as well as having the Surge dealer install the parlor hardware . . . but the rest was done by our own labor force, along with the help of neighbors I mentioned."

The bulk tank and milking parlor hardware are both second-hand, but adequately functional for the 85 cows in the herd. The only obvious problem is that the steel grates in the parlor-stall floors have broken down the concrete lips holding them. "The grates should rest on steel edges cast into the cement," Julian advises.

Grain Fed

Pelleted grain is full-fed in the side-opening stalls of the milking parlor . . . grain available at all times when cows are in the parlor. Julian plans on arranging a space just inside the parlor where high producers (70 pounds or more of milk per day) can be fed additional grain. He figures each cow averages eating 18 pounds of grain per day in the parlor.

"My objective when building was a setup to keep the most cows for least cost, and one that required a minimum of labor to operate," Julian comments. "We chose a building that wasn't complicated to put up . . . and used some second-hand equipment. The bunker silo cost only $1,000, and it operates without unloaders and other equipment to worry about. We didn't try to cut corners on concrete, though . . . floored the silo and feeding area with it, as well as in the barn itself."

The DHIA herd average is 14,200 pounds of milk, up from 12,000 pounds three years ago. The barn may have carried a cost tab unusually low, but it obviously gets the job done. — *G.L.C.*

{ The Twain Shall Meet }

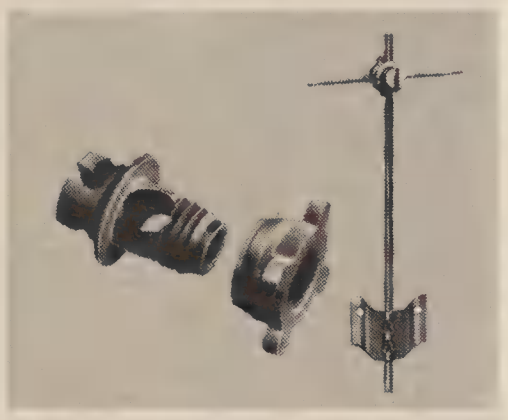
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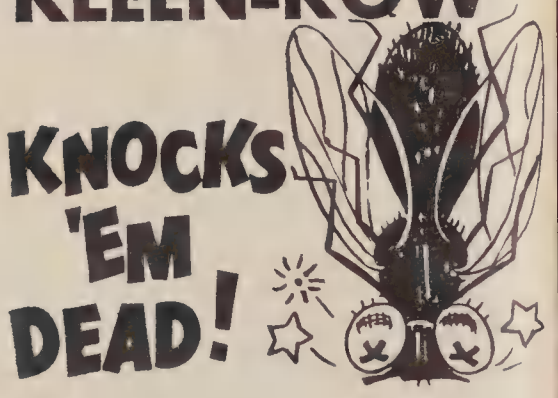


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Empire Farm Days

August 7, 8, 9

Dryden, New York

Picnics Are Fun!

by Marcia Pimentel



Photo: Reynolds Wrap

Chicken is still one of our best meat buys, and baked in foil on the grill, it makes an easy and delicious picnic main dish.

The bright days of July are just right for outdoor cooking, whether in the back yard or away from home at a nearby park. It seems to me that picnics should be simple and leisurely, so all can relax and enjoy the beauty of outdoors.

Remember all that fresh air and the tantalizing aroma of food cooking will sharpen appetites. In fact for both main dish and salad, I allow about double the usual amount of food.

In planning picnic foods that are to be prepared ahead of time and carried a fair distance from home, certain precautions must be taken. Protein foods such as meat, chicken, eggs and milk (and mixtures containing them) must be refrigerated until serving time. This is because Salmonella and staphylococcus microorganisms, if present, grow rapidly at warm summer temperatures.

If your portable refrigerator maintains a 45° F. temperature, you can safely transport egg, chicken, potato or tuna salad or cole slaw to a distant cook-out. Otherwise it is not worth the risk of illness.

Charcoal Grilling

Learning how to regulate heat on a grill may require a little experimenting. The general rule of not overcooking meat applies to outdoor cooking as well as that done inside. The coals should glow, not flame, so this necessitates starting the fire ahead of time.

If the meat seems to be cooking too fast, the rate can be slowed by raising the grill away from the bed of coals. Just a reminder — once cooking is started, the meat needs to be watched, but this can be done from a lounge chair nearby!

Both the chicken and summer squash recipes that follow use foil in place of a regular cooking utensil. Foil is especially useful if you are cooking away from home, as dirty pans are eliminated. If possible, use heavy foil for outdoor cooking because it is stronger and wider than regular foil.

Chicken Baked in Foil as suggested by the Reynolds Metals Company is fun to make. I have also used dry mushroom soup mix instead of onion soup mix and find it an excellent variation, especially for folks who do not like a strong onion flavor.

FOIL BAKED CHICKEN

1 broiler-fryer chicken, cut in serving-size pieces
4 squares heavy duty aluminum foil
1 envelope dry onion soup mix
1 teaspoon paprika
4 tablespoons butter or margarine
1 can (4 oz.) mushrooms, drained
½ cup milk
2 cups potato chips

Rinse chicken, dry and remove small protruding bones. Tear off 4 squares heavy duty aluminum foil. Shake out dry onion soup into small bowl to blend evenly.

Place a small dab of butter, 1 tablespoon onion soup and ¼ teaspoon paprika in center of each foil square. Arrange chicken over this; then sprinkle with remaining onion soup and dot with butter. Add mushrooms and milk, dividing evenly among the four packages.

Bring foil up over food, sealing edges with a tight double fold. Seal other two ends same fashion, turning them up so juices will not run out. Cook for 50 to 60 minutes on a medium hot grill.

Set foil packages in baskets or on paper plates and serve with hot potato chips and rolls. To heat potato chips, put in center of large piece of aluminum foil, close ends loosely and place on back of grill where heat is not too intense for about 10 minutes. Four servings.

When chicken is about half cooked, add foil packages containing the summer squash. Zucchini squash is also just as good fixed this way and will take about the same length of time to cook.

GRILLED SUMMER SQUASH

2 to 3 small crookneck squash
3 tablespoons butter
Salt and pepper
¼ cup Parmesan cheese (optional)
Aluminum foil

Slice squash into ¼-inch slices; arrange on a large square of foil. Dot with butter, sprinkle with salt, pepper and Parmesan cheese. Seal package securely and cook on grill for about 30 minutes. Turn or gently shake package frequently to distribute heat. Six servings.

Tomato Salad Dressing is our family standby and goes well on a mixed vegetable tossed salad. We also like it as a topping for a cottage cheese salad, served on a bed of Buttercrunch lettuce.

TOMATO SALAD DRESSING

1 cup tomato sauce
⅔ cup vegetable oil
⅓ cup vinegar
1 clove garlic, minced
1 teaspoon salt
1 tablespoon Worcestershire Sauce
½ teaspoon dry mustard
½ teaspoon paprika
¼ teaspoon pepper
½ teaspoon Italian herbs (oregano can be used)

Mix the above ingredients in a glass jar. Chill well before serving. To decrease calories, I use ½ cup oil and ½ cup vinegar. Yield: 2 cups.

Summertime Supper

Another choice for meat to be grilled is a fully cooked ham slice, since it is a boneless cut and without much waste. For a less expensive meat, hot dogs or hamburgers can be substituted and served with the kabobs and vegetables.

GRILLED HAM AND PINEAPPLE KABOBS

1 No. 2½ can pineapple chunks
1 cup brown sugar
⅛ teaspoon cloves
½ teaspoon dry mustard
1½ green peppers, seeded and cut in chunks
1½ to 2 lb. center ham slice, fully cooked (1½ to 2" thick is best)

Drain pineapple, reserving ½ cup of juice. Mix juice, sugar and spices. This can be done ahead and refrigerated.

Arrange pineapple chunks and green pepper alternately on skewers. Slash the outer fat on ham and grill, allowing only about 10 to 12 minutes per side, since ham is fully cooked.

When you turn the ham, start cooking the kabobs. As both continue to cook, baste with sugar sauce. Turn kabobs frequently. Six to eight servings.

Making **kabobs** is fun, and the variety is almost endless. If possible, use skewers with wooden handles, as these stay cool and are easy to turn. To add flavor and prevent burning, kabobs are basted during cooking and also turned frequently. For a speedy basting sauce, use your favorite Italian dressing or a barbeque sauce for a spicy tang.

Try combinations of the following as main dish accompaniments: pitted ripe olives, green olives, dill pickle slices, gherkins, cherry tomatoes, mushroom caps, water chestnuts, mandarin orange sections, maraschino cherries.

Mexican Succotash is really a year-round recipe, but in the summer made with fresh garden vegetables, it is special. The cooked vegetables can be placed in a casserole and kept warm until the grilled meat is done.

MEXICAN SUCCOTASH

⅓ cup onion, chopped
3 tablespoons butter
3 or 4 small zucchini, cubed
2 cups cut corn (fresh, frozen or canned)
4 fresh tomatoes, peeled and cubed or 2 cups stewed tomatoes
Salt and pepper

Cook onion in butter until golden brown. Add prepared vegetables. Cover and simmer about 25 minutes or until vegetables are tender. Stir occasionally to prevent scorching. Season with salt and pepper. Makes 6 to 8 servings.

Thanks to the many fruits in season, **summer desserts** can be colorful, nutritious and delicious. Eaten plain, with a dollop of whipped cream or ice cream, strawberries are always a treat. Fresh red raspberries, black raspberries and the many varieties of melons are also "naturals" for picnic desserts.

BACK YARD PICNIC

Chicken Baked in Foil*
Toasted Potato Chips*
Grilled Summer Squash*
Tossed Green Salad — **Tomato Salad Dressing***
Cantaloups ala Mode

SUMMERTIME SUPPER

Grilled Ham Slice*
Pineapple Kabobs* — **Buttered Garden Green Beans**
Mexican Succotash*
Strawberry Shortcake

(Recipes included for starred items)

BEFORE THE STORM

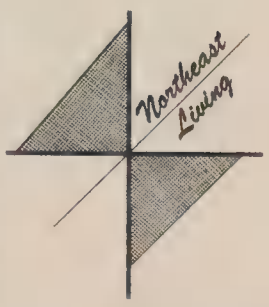
by Inez George Gridley

The trees are wringing their anxious hands;
The sullen sky is a pewter bowl.
Blue Mountain wavers in a purple light
Before the drums of thunder roll
And lightning tears the fluid skies.
Shut the windows. Bring in the clothes.
Race to the barn with a load of hay
Before the great sky river flows.

GARDEN TALK

by George and Katy Abraham

Your tomatoes are well on their way now, but don't let disease rob you of a crop. Let's hope you planted some disease-resistant types (Heinz 1350, Jet Star, Supersonic, Big Boy, Rutgers, to name a few), and fungicides will check the following diseases:



Early Blight – brown spots with a target pattern up to one-half inch in diameter, starting on older leaves.

Late Blight – dark, irregular, water-soaked areas on leaves and stems. In damp weather, a white moldy growth may be on the spots. Irregular gray-to-black areas may cover up to one half of the surface of green or ripe tomatoes.

Anthracnose – spots on ripe fruit only are circular, slightly sunken, brown and up to one-half inch in diameter.

It's a good idea to spray or dust your plants, using 4 tablespoons of 70% Zineb or 5 tablespoons of 70% Maneb in 2½ gallons of water, or you can use a general purpose vegetable spray preparation, purchased in your local garden store. Spray at 10-day intervals. If you use dust, apply it at 7-day intervals, using 4 to 5% Zineb or Maneb dust.

Note: We repeat fungicides will not control **Fusarium Wilt.** With this, lower leaves turn yellow and wilt, and later the entire plant may die. Peel back the "bark" on the lower portion of the stem, and you will find brown streaks in the inner wood.

If you haven't started training your tomatoes on a wire trellis, there's still time to do it. This may save your crop from snail damage if we get a real wet summer again.

Garden Soils

Be sure and save your grass clippings, especially if your soil is sandy or clayey. A heavy clay soil is tougher to handle than a sandy soil because it breaks up harder, packs down and cements over and even cracks when dried out.

The best way to loosen up a heavy clay soil is to work in all the organic matter you can get – peat moss, sawdust, rotted manure, grass clippings or anything else that's available. Add about 2 inches of one of the above and a couple inches of coarse sand to your compost or garden. Build up your own soil bank by saving table scraps – coffee grounds, tea leaves, egg shells, etc., and add them to the compost.

Plant Emotions

Often we're asked if plants really respond to emotions – love, hate, fear, etc. We believe there's something to the idea. Certainly, plant emotions cannot be equated with those of humans, since they are not vocal in their protests. Plants do react, however, by sending out tiny electric impulses which can be picked up by the same equipment policemen use to detect lies.

Several students have written to tell us they made plant emotion studies in colleges and high schools and that results are pronounced. College students at Kansas State Teachers spend their laboratory hours pinching, cutting, burning and gassing bean plants, and their results have been recorded. Impulses are picked up by a galvanometer attached to the plant. The galvano-

(Continued on page 30)

RURAL MAIL SHOP

Tiller Users!



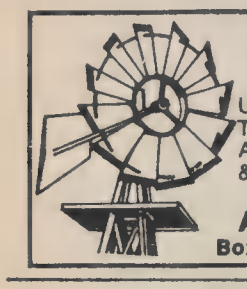
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We will visit the four best known islands – Hawaii, Maui, Kauai and Oahu. On **Hawaii, the Big Island,** our first stop is Hilo, orchid capital of the world, and we'll see the nurseries where these exotic flowers are grown. We'll also visit Hawaii Volcano National Park, Akaka Falls (which are higher than Niagara) and pass through the vast Parker Ranch on our way across the island to Kona.

A tour of the historic Kona Coast will take us to the City of Refuge, Captain Cook's Monument, and a mill where the world-famous Kona coffee is ground. Also, Kona waters abound with marlin, tuna, skipjack and bonita; arrangements can be made for any who wish to try their luck.

Two of the things we'll see on the **Valley Isle of Maui** are Lahaina, first capital of the islands and the place where much of the movie "Hawaii" was filmed, and "The Needle," a fern-covered volcanic freak rising 2,000 feet above the valley floor. We'll also take a ride on the Lahaina, Kaanapali and Pacific Railroad.

Honolulu and Waikiki on the **Island of Oahu** are at their festive best during Aloha Week. Each evening colorful celebrations describe various events in the history of Polynesia and the South Pacific. The Floral Parade is a truly outstanding feature, and we'll be right there to see it.

On a full day's trip around the island, we'll visit Sea Life Park and the Polynesian Cultural Center where six native villages have been constructed to depict the cultures of Samoa, Tonga, the Maoris, Fiji, Tahiti and Hawaii. On another day we will go for a cruise through Pearl Harbor to see Battleship Row, where the sunken USS Utah and USS Arizona have been left as a permanent memorial to our servicemen who lost their lives on that dark day of December 7, 1941.

Among other interesting things to see in Honolulu are the Wax Museum, Iolani Palace, Punchbowl Crater, the Kodak Hula Show, and Dole Pineapple Cannery; there's shopping at the International Market Place and Ala Moana Shopping Center, and always the beautiful sandy beaches invite you to relax and enjoy the ocean breezes and bright sunshine.

Kauai is known as the **Garden Isle.** Here we'll make an excursion up the placid Wailua River to Fern Grotto State Park and take a trip to Waimea Canyon, "Grand Canyon of the Pacific." Our hotel here is also

(Continued on page 30)

Gordon Conklin, Editor
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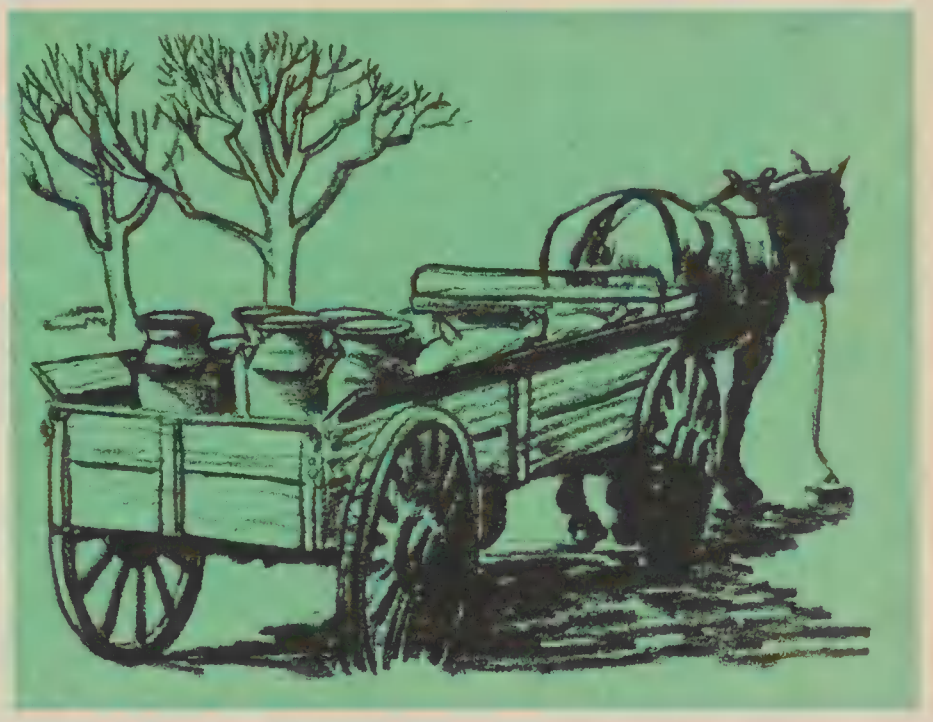
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FARMS! 380 acres - 65 cow stanchion barn, four bedroom home, heifer barn, bulk tank, silo unloader, barn cleaner - $81,000. Dairy replacement operation, 375 acres, very nice buildings for 150 head, good four bedroom house. This is a money-making business. Owner retiring, financing available. 500 acres, 250 tillable, 200 pasture. Barns for 200 head, top alfalfa soil, three houses, $215,000. Liberal financing. 340 acres - 150 tillable, plus pasture. 40'x225' two-story barn, excellent condition, 20x60 and 16x50 concrete silos with unloaders, large home in good condition plus apartment, all barn equipment. Priced at $160,000. This is a good farm with a nice location. Call: Richard E. Posson, Licensed Real Estate Broker, RD #3, Norwich, N.Y. 13815. Phone 607/334-9727.

VALUE HUNTER'S SPECIAL - Just over $100 per acre buys 444-acre New York farm for dairy/beef setup and recreation! Over 2 miles frontage on 3 spring-fed brooks, 4 springs, spring-fed pond, 180 acres tillable, 140 clover and mixed hay, 40 improved grass, lots of woodland with marketable timber, great deer hunting. Rambling 10-room farmhouse. 2 other houses need work. 40x100 dairy barn, 34 stanchions, milkhouse, silo. Remote setting but not isolated, on town gravel road. Top dollar value here at $45,000, one fourth down, owner financing. Free . . . big 256-page Summer Catalog! Describes and pictures hundreds of farms, ranches, town and country homes, businesses coast to coast! Specify type property and location preferred. United Farm Agency, 501-AA Fifth Ave., New York, N.Y. 10017. Phone 212/687-2623.

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WANTED: DAIRY FARMS bare or stocked. Qualified buyers waiting. Paul Bouman, Salesman. Phone 914/895-2817 or Sheldon Ocko Associates, Inc. Phone 914/374-5611. P.O. Box 178, Route 17 M, New Hampton, New York 10958.

BUYERS WAITING! For good dairy farms within 250 miles of New York City. Bare or stocked. We can finance. Also, interested in recreation land, timber or development land. Make your offer now! Our company also buys direct. Barmann's Realty Sales, Inc., R. D. #4, Middletown, New York. Phone 914-343-1108.

WANTED ALL KINDS OF FARMS, vacant land and timber lots. New York and Pennsylvania locations. W. W. Werts, Real Estate, Johnson City, New York 13790.

QUALIFIED BUYERS WAITING - dairy farms, others. Wimple, Realtors, Sloansville, N.Y. 12160. 518/875-6355.

WANTED: FARMS, ACREAGE in New England. Top price paid. Send details, price: H. Brower, 20 Wachusett Road, Chestnut Hill, Mass. 02167. Phone 617/969-3461.

WE NEED ALL type farms. We specialize in farm sales and have waiting buyers! Call Richard E. Posson Real Estate, RD #3, Norwich, N.Y. 13815. 607/334-9727.

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WANT TO PURCHASE whole or part quality operating beef farm. Must fully support minimum 100 head. C. Simpson, RR1, Katonah, N.Y. 10536.

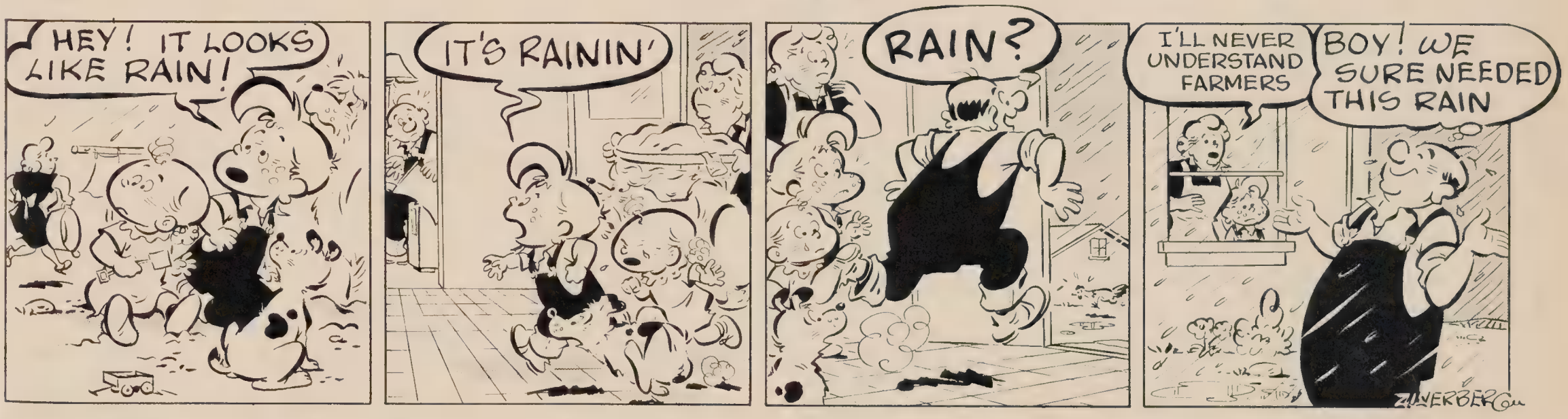
GINSENG

GINSENG SEEDS, for planting. $5,000 possible growing ¼ acre. For information, price list, write: Blueridge Ginseng, McDonald, Tenn. 37353.

GREENHOUSES

GREENHOUSE - 8' x 12'. Build yourself for less than $50.00. 5 different plans - $2.00. Werth's, Box 1902GC, Cedar Rapids, Iowa 52406.

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STRAW AND ALL grades of hay delivered subject to inspection. For more information call person-to-person after 6:00 PM 518/994-1144. Christman's Exchange, Inc., RD2, Fort Plain, N.Y. 13339.

QUALITY GRADED HAY & Straw, all kinds shipped or trucked anywhere. Desmond Hay Service, Box #666, Spring Lake, N.J. Tel. (201) 449-1888.

HAY FOR SALE - all grades delivered from central New York. When writing give telephone number or call 518/994-5111. Snyder Petroleum, Inc., PPO Box 227, Fort Plain, N.Y. 13339.

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PROFESSIONAL A.I. TECHNICIAN—Eastern is looking for qualified men who want a challenging agricultural career providing an important and needed service to dairymen in the Northeast. The job offers working out-of-doors with farm people, above average income, liberal benefits, and transportation. Write or call: Eastern A.I. Coop., Inc., Box 518, Ithaca, New York 14850. Phone (607) 272-3660.

SALESMAN WANTED - Unlimited opportunity for ambitious man to call on stockmen and dairymen selling well known products of high quality. The company is well established and has been in business for over 20 years. Selling experience and knowledge of livestock an advantage. However, this job would be very suitable for an active retired farmer. Must have suitable transportation. Work on full time basis - there is no limit to earning power in this sales position. Fringe benefits carried include Life Insurance, Hospitalization Insurance. Worth looking into! For full particulars, write to Personnel Mgr., Box 29, Waverly, New York 14892.

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CIRCLE HEAD RIG SAWYER, experienced with hardwoods, electric push button carriage. Salem Feed and vertical edger; also mill hands for debarker and bucking with chain saw. Donatoni Brothers, Inc., 199 W. Main St., Rockaway, N.J. 07866. Call collect at 201/-627-2550.

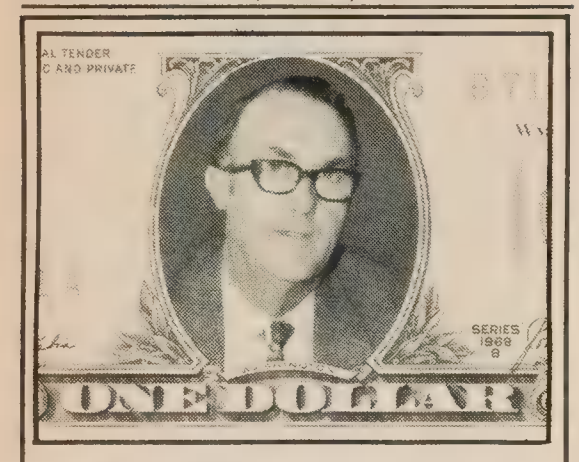
MARRIED MANAGER for Beef Operation. Farm background plus agricultural college required. Top salary, modern home, and future profit sharing for the right man. Call 201/-538-4087.

MAN WANTED who would like to stretch his Social Security check by sharing the upkeep of small country home. Write Box 369-EA, Ithaca, N.Y. 14850.

WANTED: MAN-WIFE, retired, to work grove garden on lake. Mobile home. Write Angelo Ranoldo, Box 101, Clermont, Florida 32711.

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HARRY ENNIS, Sales mgr. says —
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EXTRACTED NATURAL HONEY - clover, fallflower or buckwheat. 5 lbs. $4.00; three 5's $11.00; six 5's $19.00. Postpaid to 3rd zone. We use stainless steel extractors and tanks. Lang Apiaries, 8448 N.Y. Rt. 77, Gasport, N.Y. 14067.

HONEY: (NEW CROP). New York's finest clover, wildflower and buckwheat. Price lists available. Sold by the ton or pail. Write Howland Apiaries, Berkshire, New York 13736.

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WANTED - LAND for campsite. State location and price. Box 161, Middlefield, Conn. 06455.

MISCELLANEOUS

STOP RUSTY WATER from ruining wash, staining fixtures. Proven filter keeps water free from rust, sand, odors, tastes, other impurities. Low cost, reusable replacements. 30 day trial offer. Write Samcor, 836-Q West 79th, Minneapolis, Minn. 55420.

MISCELLANEOUS

COUNTRY STORE CATALOG, 35¢. Bargains galore! Foxes-AG, Box 914, Memphis, Tenn. 38101.

STOP CESSPOOL TROUBLES without pumping. Pumping or emptying a cesspool or septic tank is not actually cleaning it as your filter bed is clogged or the system would not be full. Our cleaner, Sursolvent, dissolves the solids and eats out the muck and slime crustations on the side walls, thereby releasing the water, correcting the fault which caused the system to finally fail. No pumping necessary. Users report years of satisfactory results. Free descriptive literature and prices. Electric Sewer Cleaning Co., Dept. AA, Allston, Mass. 02134.

WATCH AND CLOCK repairing books and tools. Free catalog. North American, Box 77RT, Fox River Grove, Illinois 60021.

QUICK-JOHN—Cleans septic tanks, cesspools, outdoor toilets. Stops odors, backups. Opens drains. 6 premeasured treatments $3.55, 12—$6.40 ppd. Money Back Guarantee. Ryter Co., Madelia 20, Minn.

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PRICING/SELLING HANDBOOKS - 10,000 Antiques, $1.00: 3,000 Bottles, $3.95; 1500 Fruit Jars $1.95. Detailed pictures/illustrations. All 3 books, $4.95 postpaid. Guaranteed. Harvest Publishers, Box 3015-LC, Milwaukee, Wisc. 53218.

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35 STAINLESS STEEL double-edge blades, guaranteed for 10 shaves or more. $2.00. Pierpont Mart, P.O. Box 221, Fairhaven Sta., New Haven, Conn. 06513. Free trial blade.

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FOR SALE: 10x55 mobile home with 4x8 tilt-out extension on living room, three bedrooms. Good condition. Phone 716/535-7626.

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AUTOMATED GRAIN DRYING and handling systems, bucket elevators, grain storage bins. For professional help in picking the right size, style for your needs call 716/532-4016. Charles Van Etten, Gowanda, N.Y. 14070.

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HOE BETWEEN PLANTS and rows . . . no more back breaking labor, self-propelled hoeing machine; depth adjustable; thousands in use; year warranty. Factory discount; month trial; time payments. Free literature. Auto Hoe, Inc., De Pere 9, Wisconsin 54115.

LAMINATED RAFTERS & ARCHES for all farm purposes. Kiln-dried lumber. Waterproof glue. Popular sizes stocked 12′ to 80′ and wider. Box S-73, Unadilla Silo Co., Unadilla, N.Y. 13849.

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IRRIGATION SYSTEM 1700 (plus) feet 5-inch aluminum pipe, 2 nozzles each cover 250 ft. swath, fittings, etc. Chrysler industrial engine, Hale pump 6-inch suction line, custom made rig for carrying pipe and fittings, used only one year. $3,500.00. Want to buy: Attachments for Cub Lowboy Tractor, also Ford or MF Tractor with front end loader. Norman Kellar, 610 Route 32 North, New Paltz, New York 12561. Phone 914/331-8900 or 914/255-1740.

RIDING LAWNMOWERS - new, 7 horsepower $189.00. Freight paid. Free brochure: Tomco, P.O. Box 72, Oak Grove, Missouri 64075.

ASHLEY THERMOSTATIC wood burning circulators. Complete stock at Harkey's Equipment Company, Mont Vernon, New Hampshire 03057. Phone 603/673-3700.

FOR SALE: DE LAVAL plate cooler, wall or post mounted, complete with ice tank, compressor, circulating pump and motors. Ideal for large dairy farm or small milk plant operation. (3,000 lbs. milk per hour). Walker's Fruit Basket, Forestville, N.Y. 14062. Phone 716/679-1292.

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BALERS - 10 used wire ties - J. Deere, Ford, New Holland, International. Combines - Over 25 to choose from - New Int. 615, 715, 815, 915; 82 Bean Specials; Case 600 w/cab; Ford 630 w/4 row head; four John Deere 55's, two with corn heads; two Int. 503's; two Int. 403's, one with tracks. Int. Model 91, 205, 315 - 20 corn heads 2 - 3 - 4 - 6 row - 2 year old Bidwell 38″. Dryers - Tox-O-Wik 360, New Holland 560 electric, MC-600 continuous. Batavia Farm Equipment Inc., Batavia, N.Y. 14020. Phone 716/343-9263.

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IHC BALERS used 1 - 2 seasons, $750.00. All models N.H. - good selection used - 78 balers. 7 - 9 - 12 ft. haybines. New Owatonna PTO 9 ft., $1995.00 del. Used windrowers $500, up. 40 flail choppers $300, up. 100 crawlers and wheel tractors - 30 Ac. equipment. 10 self-propelled combines. Don Howard, Canandaigua, N.Y. 14424.

FOR SALE - 1966 REO truck, 2 speed rear axle, 10-20 tires, power steering, air brakes, 24′ rack body plus 9′ over-cab. Double frame. Less than 25,000 miles. Asking $5,900.00. 802/442-3884 - call after 7 PM.

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Save 75% by drilling your own water well this new, easy way! Complete information $1.00 ppd.

DEEPROCK MFG. COMPANY
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FREE CATALOG write Tennessee Nursery & Seed Co., Box 645, Dept. 92C, Cleveland, Tenn. 37311.

1,000 NURSERY ITEMS - Trees (fruits, ornamentals), shrubs, evergreens (seeds, seedlings), grafts, many unusual plants. Propagation supplies, tools, pots, horticultural books. Mellinger's, North Lima, Ohio 44452.

STARK BRO'S. NEWEST Catalog free! Full-color display of full-size apples, peaches, nectarines, pears, cherries, apricots, plums from dwarf, semi-dwarf, standard size trees. Ornamentals, roses, vines. Stark Bro's., D10573, Louisiana, Missouri 63353.

PLANTS

RASPBERRY BUSHES for fall planting - Latham, Durham, Amber, Boyne, Madawaska, Hilton and Gatineau. Also, blueberries, rhubarb, grapes. Send for free pricelist. Walter K. Morss & Son, R. #3, Bradford, Mass. 01830.

PLASTIC NETTING

GROW FRUITS AND VEGETABLES for yourself—not for the birds! Cover trees or plants with lightweight new strong Zendel plastic netting. Economical, long-lasting protection. Lets in air, rain and sunshine. 7/8″ mesh, 20′ x 20′. Fred H. Howe, Box 267, Somerville, New Jersey 08876.

REAL ESTATE

VIRGINIA'S EASTERN SHORE - farms, water front, acreage, homes, retirement places. Free list. John B. West, Broker, Nelsonia, Virginia 23414.

VIRGINIA FARMS, HOMES, Commercial for sale. Ralph Fowler Real Estate, P.O. Box 361, Madison, Virginia 22727. Phone 703/948-4143, office-home.

FREE CATALOG! Giant Summer edition! Over 5,200 properties described, pictured - land, farms, homes, businesses - recreation, retirement. Selected best thruout the U.S.! 73 years' service, over 660 offices, 41 states coast to coast. Mailed free from the world's largest! Strout Realty, Inc., 60-RT E. 42nd St., New York, N.Y. 10017.

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WANTED--FARMS, ACREAGE, village and country homes, all other types of real estate and business opportunities. New York and Pennsylvania. W. W. Werts Real Estate, Johnson City, New York.

SELL YOUR FARM, ranch, acreage direct to buyers through Land Market-Place, Box 132-AM, Brownsdale, Minn. 55918. No sales commission. Write for details.

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45'S BY MAIL. 85¢. Postpaid. Free record with purchase! Latest Country, Rock, Popular, Oldies. Free Catalog! Write: MOS, Box 788AA33, Anaheim, Calif. 92805.

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WOMAN WRITER, nature lover, wants board and room. Spayed German Shepherd must be included. Geraldine Ross, 325 N. West St., Waukegan, Illinois 60085.

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SELL ANIMAL HEALTH Supplies for area's fastest growing wholesale distributor. Prime territories available. Guaranteed salary plus commission. Animal Medic, Inc., P.O. Box 575, Manchester, Pa. 17345.

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SAWDUST AND SHAVINGS in carload lots. Also Kiln dried soft wood in compressed bales. Compressed bales in paper bags, delivered in truck loads or car loads. Bono Sawdust Co., 33-30 127 Place, Corona 68, New York. Telephone HI-6-13[illegible].

BALED SHAVINGS delivered by tractor trailer. Clifford Hay, Inc., RFD # 1, Cobleskill, N.Y. 12043. Phone 518/243-7165.

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KILN DRIED SAWDUST and shavings by trailer load to all points in New England and parts of New York. Ponderossa and White Pine to choose. Contact Joseph R. Beauchesne, Londonderry Rd., Windham, N.H. 03087. 1-603/-434-0238.

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ALUMINUM "POSTED" SIGNS, 24 styles. Permanent, inexpensive. Free sample. John Voss, 70AA Farley Lane, Manlius, New York 13104.

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SILOS—Factory Creosote Treated Wood. Less frozen ensilage and absolute acid resistance. Dependable lock dowelled, wind-resistant construction. Immediate delivery. Box BS-73, Unadilla Silo Co., Unadilla, N.Y. 13849.

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AGRICULTURAL and heavy equipment mechanic, married, 43, fully qualified, wide experience many parts of the world, returning United States September-October, requires permanent position, preferably with accommodation. Any location. Please reply: BM Vintalvist, London, WC1V. 6XX, England.

CARETAKER, GARDENER, maintenance man. Well experienced. Best references. Box 369-EC, Ithaca, N.Y. 14850.

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STAMPS FOR COLLECTORS - United States, United Nations, foreign on ten day approvals - all supplies - one reference. T. Waite, 83 Klarman Drive, Mount Carmel, Conn. 0651[illegible].

RARE 1909VDB CENT $1.00, U.S. Silver Dollar before 1900 $3.95. Catalog 25¢. Edel's, Carlyle, Illinois 62231.

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"TOBACCO"! Sweet Chewing or pipe smoking 3½ pounds $3.00. Postpaid. Guaranteed. Fred Stoker, Dresden, Tennessee 38225.

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YOUR group want an especially arranged tour or cruise? The experts who have handled American Agriculturist tours for a quarter century will make all arrangements for groups—whether it's around the world by jet, or air-conditioned bus to the Gaspe. Write: Tours, Box 370, Ithaca, New York 14850 and tell us where in the world you want to go—and when, how long, and how many!

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ONE OF OUR most popular services to readers is sponsoring and arranging tours and cruises. They are popular because the worries about foreign customs, handling baggage, value of foreign money, language barriers, tickets, reservations, etc., can be forgotten. Trained, experienced escorts take care of everything for you—even tipping. For details on our future tours, write American Agriculturist Tours, Box 370, Ithaca, N.Y. 14850.

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WANTED: SHOW CATTLE BLANKETS, halters, etc. James Ellis, RR #3, Cattaraugus, New York 14719.

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CARS WANTED: 1928-'35, any condition. Write N. A. Soprano, 835 Mt. Kisco Rd., Armonk, N.Y. 10504. Call 914/273-8342. Include price and condition.

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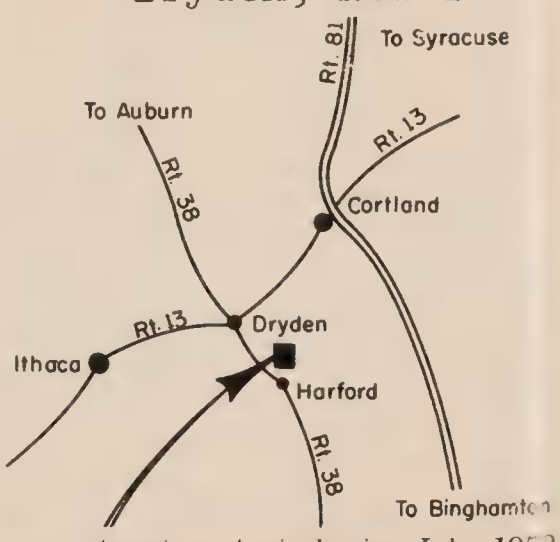
CUSTOM SPOONS for church, organizational and centennial fund raising. Write Corwil International, Dept. A, P.O. Box 4830, Cedar Rapids, Iowa 52407.

SEND FOR MAGNETIC Refrigerator Patterns - Butterflies, kerosene lamp, Dennis the Menace & Margaret, cornucopia & fruit, Suzy Sunflower, Hey, Diddle, Diddle, Kittens. Ask for Set 20. $1.25. Mrs. Edwin Schroeder, Garner, Iowa 50438.

SOGGY TOAST with poached eggs? Not with Egglifter! Instantly drain anything cooked in liquid. Eggs, meatballs, peas. Name it! Free gourmet recipe. Stainless. Guaranteed. $3.50. J. Damon Co., Box 666CG, South Orange, N.J. 07079.

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Empire Farm Days
August 7,8,9
Dryden, New York





by Amos Kirby
New Jersey Editor

Blueprint report

THE New Jersey Blueprint Commission Report predicts a bright future for those who plan to operate farms in the Garden State. This report outlines plans for conserving much of New Jersey's remaining one million acres of good farmland . . the dairy, livestock and grain farms in the northern part of the state, and the fruit and vegetable areas in the south.

Look at a map of New Jersey, and note the northeastern part of the state, where almost all of the land has been devoted to development and industry. In central and northwestern New Jersey, one finds an area that can still reserve substantial open space. In the lower six counties, advance land-use planning is still possible on a much larger scale.

The first step, as I view it (the writer is a member of a board of adjustment in a township where speculators are seeking land) is a strong general zoning program.

The second step is a zoning ordinance that requires 50 to 70 percent of open farmland designated as open space. This may not always be possible, but it is most important.

The third point . . . and this is recommended in the Blueprint Report . . . is the sale of development rights to the state (or some other agency) while the land continues to be used for crop production.

LOOK AHEAD

A new pest has arrived. The Japanese beetle was a problem a few years ago; the gypsy moth is leaving a trail of devastation far more serious. Now comes the monk parrot.

The monk parrot is a bird about the size of a pigeon, and it can become one of the most destructive pests if it becomes established. It eats fruits and vegetables, and can also devour grain.

According to people at the Division of Plant Industry, it has been found in Salem and Monmouth counties. It is vicious . . . it attacks other birds, and is believed to even successfully resist attack by hawks and falcons.

SOMETHING NEW

If you're tired of dairying, or of growing fruits or vegetables, why not take a look at new opportunities . . . like growing hay for the fast-expanding horse trade, or maybe a roadside market. Recently, I visited four types of farming ventures in central New Jersey that have amazing opportunities:

— N. H. Wright, Cranbury, grows roses and chrysanthemums. He has a huge inflated plastic greenhouse (100×500 feet) housing 32,000 vegetable and flower plants for the retail trade. It includes nine acres under plastic where millions of plants are grown annually.

— On our trip, we saw hundreds of acres of good land devoted to sod production.

All these ventures are profitable. People today rarely complain about the cost of ornamental plants like they do over food prices.

OSHA MEANS BUSINESS

The Occupational Safety and Health Administration, known as OSHA, has set up strict standards concerning reentry of workers into orchards or fields that have been sprayed or dusted with 21 of our most common pesticides. The rules require that workers are not to reenter treated areas for specified periods of time after spraying. The period varies according to the material used.

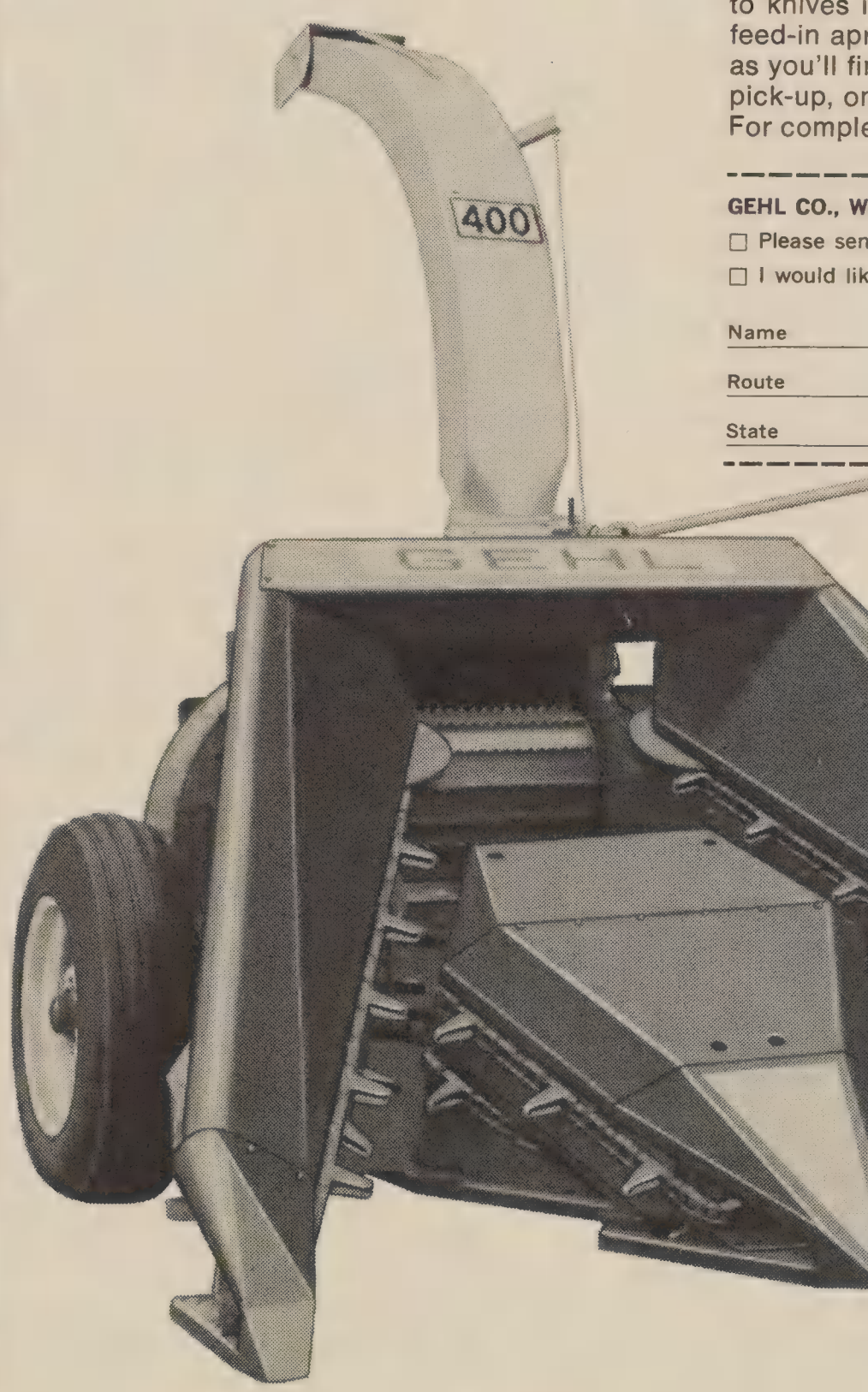
In addition, treated fields are to be posted and if the workers are unable to read, they must be orally informed.

This is not all. More records are required. One must keep records on the name of the pesticide and the dates applied. All protective clothing worn by the applicator must be washed or disposed of after each day. Also, any employer shall arrange to provide necessary medical assistance to employees who may suffer injuries or illnesses from occupational exposure to pesticides.

new CB400

compact proof that...

Gehl is for farming



The ever-popular Gehl CB600 set a tough performance precedent for the new, more economical CB400. And Gehl engineers met it! This dynamic, compact go-getter stands proudly on its own. Like the "600", the "400" has six tungsten-carbide knives cutting crops, quickly, through reversible, optional square-holed screens. It, too, combines fast, economical chopping with recutting ability. The blower shoots crops powerfully, to the back of the forage box. You get feed so finely cut, so uniform, it had to be chopped by Gehl. An optional electric inhead knife grinder restores a precision edge to knives in minutes. And, because there is no feed-in apron, the new CB400 is as maneuverable as you'll find. Select from a five or six foot hay pick-up, one and two row heads, or a mower bar. For complete information, send this coupon today!

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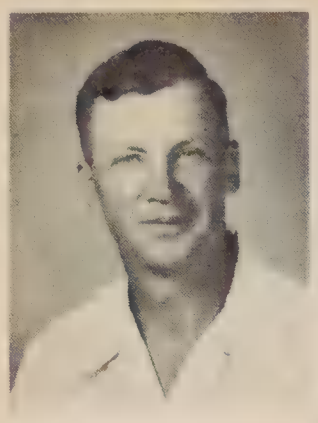
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Farm News, Notes and Nonsense

by Harold Hawley

MECHANIZING

Potato combines have become an accepted part of the harvest scene in many commercial potato areas. The fields not adapted to the use of these labor savers are, as always, those too steep or too stony. In many instances, potato growing has already been on the way out in such fields.

The slope of the land wasn't subject to much change. Not so the stony field. For untold backaches, the stones have been picked up and hauled away. Depending on the area, the big stones were hauled off and the small ones stayed. This was adequate for most crops, including potatoes, until the combine appeared. Small stones elevate along with potatoes and also cause some problems with the operation of the equipment.

It was, therefore, inevitable that better stone pickers would be developed and would be eagerly sought by growers of many crops on stony land. We recently saw one such rig on a northern New York dairy farm. The stones in that particular area can run up to considerable size. This new equipment had the capacity to handle rocks too big for one man to handle, as well as to pick up all but the real small stones.

Such equipment does not come cheap, yet in view of the time and sweat it would save it impressed me as a good investment for a farmer or a group of farmers who have this annual chore to do. In fact, the potential saving in man hours per dollar invested in this kind of equipment seems almost sure to be as great as in many other items commonly found on modern farms. For those growers of potatoes and other crops where stone picking can lead to other mechanization or mean the retention of a crop on a particular farm, the advantages are even more apparent.

RECYCLING

With all the emphasis on reuse of various materials and resources, it is interesting to note that many people had already been recycling before they had been much aware of the term.

One of the really beautiful sections of this great country is the rolling area west of Washington, D.C. This Virginia landscape with its mixed cover of woods, pasture and crops would be attractive without special help. However, its appeal has been greatly enhanced by the inpouring of city money—the restoration of fine old houses, the landscaping, and by the miles and miles of white board fences surrounding the fine black cattle and chestnut horses.

At one time, much of this land was enclosed with rail fences. While most of these old fences have either rotted or fallen down (or been replaced by something more modern), a few have been maintained. One huge farm or country estate I observed recently had been completely enclosed and cross-fenced with the original old-time rail fences.

I can only guess what it would cost to find enough original rails, tear them out of their old settings, bring them home and build new fences. Of course, building the more common white board fence must also add up to a sizable cost. At any rate, this large acreage enclosed in the old zig-zag rail fence was a thing of beauty . . . and a joy forever.

In a very modest way, we have been recycling a few cedar rails from original rail fences. We need to fence a small area for our two riding horses. The pasture is to be adjacent to the house and lawn where we are building our new home. We wanted no part of a zig-zag rail fence because of the problem of controlling weeds, and did not feel we could afford the commercial "rail fences" which have the rails inserted into slots in the posts.

Double Posts

Our approach was to put two posts (old rails cut in two and sharpened) side by side about a foot apart. Three cleats made from rails were spiked to the posts. The pairs of posts were set 12 feet apart, allowing the rails to stick through a little on each end. The biggest chore was to decide on the spacing of the cleats so that the three rails looked about the right height.

It's strictly a question of taste and personal preference, but to us it seems that these old cedar rails, beautifully weathered as they are, give a certain air to a place. It's interesting to observe that most of the rails are still hard and sound after serving duty for who knows how long. Some have suggested they may have been turning cattle as much as 150 years ago.

Project

We've been engaged in another little project that involves the use or reuse of materials much older than these cedar rails. One of the things we've always talked about, but done nothing about, was a fireplace for our home. So now we naturally are building one into the new house. Split field stones offer so much variety in coloring that we decided to use them.

So now for some weeks every little jaunt involves keeping an eye peeled for something a little different. Northern New York has yielded some beautiful granites with reds and yellows. Road cuts through some Pennsylvania mountains yielded some gray stones embedded with great chunks of quartz. Other "finds" have been from quarries and rock piles on local farms. The variety is almost endless.

Two things have come to our attention. A sizable pile of rocks in the trunk of the car chips and slices down to a rather small amount of usable rock. Second, just as in anything else, once you get interested in it you find that there are a lot of other people who are "nuts" too. One man we know can tell you about the color, quality, impurities, origin, etc., of rocks from the St. Lawrence River and Lake Ontario south to Virginia and Kentucky.

Anyway, it's fun to gather up the raw materials for what we hope will be a "personalized" fireplace and, incidentally, to learn a lot of things about rocks and rock formations we never even imagined. In fact, up to now, rocks were always something to pick up and sweat over in the spring and to cuss when they turned up at harvest time!

BARGAINING AND BARTERING

Among the more interesting of the price-determining devices in a capitalistic society is the auction. At least in theory, when an item is offered to a group of potential buyers, an auction system of selling will pretty much determine its value. Of course, we've all seen something "stolen" or bring a crazy price. Why? It's impossible to blame such situations on ignorance. Well-informed buyers may just decide they want something and bid until they get it even if the price is out of line.

The first time I can recall seeing this happen was when a beautiful team of young grays was sold at auction in our neighborhood when I was a kid. My dad was among the bidders. He quit when the bidding got $50 above what he had decided the team was worth when we had inspected them beforehand. They finally sold for $70 or $80 more.

I was so keenly disappointed! I have since thought that over the life of a good team that would have meant $5 or even $10 a year extra. Who could tell that close what they were worth?

Puzzling

Then comes that puzzling situation where an auctioneer can hardly get a bid for a good item. Rather than let the sale drag, he sacrifices it and hopes to balance it out on other items. I guess one just concludes that on that day at that spot with the demand that was present, the price he got reflected the market.

Now the one-on-one situations have their interesting angles, too. We've all done business with folks who take it or leave it at the price quoted to them. They sell the same way . . . quote one price, and that's it. Then there are some who just don't feel it's all been worthwhile unless a little haggling is done before any money changes hands.

We used to be amused (and sometimes amazed) by a cattle dealer to whom we sometimes sold cull cows and veal calves. We finally learned to quote him too high and let him beat the price down because that was the only way he would buy. With other people you learned to quote the real price you wanted, and negotiations were short and sweet. They said okay, or no dice, and that was it.

Same Thing

We recently sold some of my dad's things at a house and garage sale and soon discovered that those buyers were no different. One gal wanted something off on every item and then after she had bought a number of things she totaled up the cost and wanted to renegotiate the final bill!

The ultimate in sophisticated purchasing has to be from the professional antique dealer or swap-shop operator. Of course, here you have a situation with a knowledgeable buyer and an uneducated seller, or at least that was the case with a lot of items about which we really had little or no idea of the going price.

These guys or gals would most casually glance at some item and maybe ask in a "couldn't-care-less-manner" what we wanted for it. If we were low, they would help us out by buying it. If we were about right, they "didn't really need any more of those" . . . which they hoped would encourage us to lower the asking price a bit!

At any rate, these characters . . . both by their knowledge of the market, and their buying techniques . . . sure did a lot better than did most of the other buyers!

AT THE LUNCH COUNTER

Keeping your ears tuned at a lunch counter can be an education: "Those were the good old days . . . they wanted $1.69 a pound for steak . . . somebody's getting rich on that."

If there was any message in all that miscellaneous chit-chat overheard at a lunch counter a few mornings ago, it was that most people are concerned about high prices. Also that, in spite of high taxes and high prices, most of us don't want to go back to the "good old days." Most of us want to keep right on with a high standard of living which, generally speaking, means lots of good food and recreation.

Well, it just happens that a Chicago outfit called Shapiro and Associates interviewed 1,100 people at 200 locations across the country. What did these people tell them was the major problem in the USA . . . crime, energy crisis, Watergate? No—over 20 percent said inflation and the high cost of living were the major problems and issues; 86 percent said the best solution to inflation and high prices was to cut government spending.

It's been said many times before that there's really not all that much each of us can do about inflation except perhaps to get our own hand out of Uncle Sam's pocket, and then write our congressman and tell him to cut spending, all across the board! In a democracy, there just can be no doubt that if a high percentage of the people can agree on an issue, as apparently they have on inflation, and if they would let themselves be heard, the legislators would act accordingly. Have you written your congressman yet?

American Agriculturist, July, 1973

READER SERVICE



READER SERVICE CLAIMS SETTLED

NEW YORK

Mr. Paul Bockmier, Allegany ..... $ 54.13
(refund on order)
Mr. Vincent Sorge, Bath 77.50
(lost shipment refund)
Mrs. John Ford, Harrisville 6.75
(refund on order)
Mrs. Carl Riley, Constable 43.72
(refund on order)
Ms. Vera Esche, Boonville 5.96
(refund on order)
Mrs. Myron Lehman, Lowville 50.00
(refund on tuition)

PENNSYLVANIA

Mr. Gordon Pratt, Hop Bottom 7.95
(refund on order)
Mr. Wayne Hemphill, Chicora 8.75
(refund on books)
Mr. & Mrs. David Bishop, Wyalusing 115.00
(payment on lease)

MAINE

Mrs. Shirley Tanner, Kennebunk 17.98
(refund on order)

VERMONT

Mr. Wesley Kimball Sr., Montpelier .. 24.00
(refund on jacket)

CONNECTICUT

Mr. George Prue, Storrs 27.50
(refund on order)

OUT OF THE FRYING PAN . . .

In our May issue, we carried a report on Brides' Choice Inc., advising that the owner had been acquitted in Cleveland Federal Court of 31 counts of mail fraud.

The two subscribers we mentioned still have not received refunds on orders placed last July and December. Complaints of non-delivery continue to arrive at the office of the Cleveland Better Business Bureau.

Word has just been received that the firm has been closed by the Internal Revenue Service for non-payment of taxes. This could be only a temporary set-back for Mr. Schuster who appears to be adept at wiggling out of tight spots.

Complaints against the firm should be submitted to Postal Inspector Robert Jacubec, Main Post Office, Cleveland, Ohio 44101.

THE DISCOUNT GAME

If you like to gamble, you don't have to spend money going to the tracks. Just send $5.00 to Central Marketing Systems of Minneapolis, Minnesota. That will entitle you to buy at their "discount prices." You then place an order for snowmobile accessories, such as helmets, shields, and engine timers.

Shortly thereafter, you start writing letters to see what has happened to your order. Your cancelled check is returned, and you remain in suspense. You eventually ask READER SERVICE for help, but READER SERVICE cannot get answers from the firm, either.

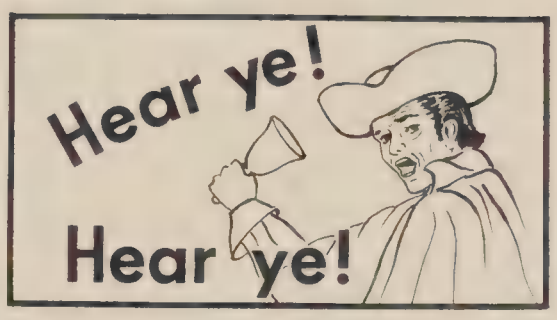
The next step is to ask the Better Business Bureau to intervene. By this time, you are more interested in garden accessories since the snow is gone.

We are not saying that everyone who deals with this firm has such problems – but we have two subscribers who did. Both invested the initial $5.00 for a discount card. One sent an order in the amount of $32.45; the other, $65.35.

We hope their claims will be settled by the time this gets into print, but we wonder if our readers could not have done just as well buying locally without the element of chance which appears to be involved in dealings with Central Marketing Systems.

Postscript

Just before going to press, a letter we had written to Central Marketing Systems was returned by the U. S. Postal Service marked "Moved, left no address." This does not mean you cannot try your luck as previously suggested. There are other outfits of the same ilk from which you can order a variety of goodies.



If you suspect that you have been victimized after itinerant workmen have left your place, one of your actions should be to report your suspicions to your local police agency. Give police names and descriptions of individuals, as well as make, model and license number of any vehicles they were driving.

Keep in mind that the police cannot arrest these people and get your money back on the basis of an informal complaint. It is important that they be alerted that such people are in the area in case they already have warrants for their arrest. If they do not and if you want to swear out a warrant, be sure you have facts to back up any charges you may make.

° ° °

Watch out for the "missing heir" dodge. Identical letters are mailed countrywide to people with the same last name as some deceased person. For a small fee, the promoter offers to send pertinent court records. Needless to say, the possibility of being a true heir is **extremely remote.**

° ° °

It is estimated that each year one out of every hundred Americans suffer from salmonellosis, often mistaken for a 24-hour virus.

Salmonellosis is an infection of the stomach and intestines, and is caused by salmonella germs which are sometimes present in such foods as fresh meat, poultry and fish. Certain pets are also recognized as notorious salmonella carriers.

For information on how to avoid such infection in your home, order the following free publications from the Office of Information, U. S. Department of Agriculture, Washington, DC 20250: "Meat and Poultry — Care Tips for You" and "Keeping Food Safe to Eat."

It Pays
To Be Protected

Let North American help pay your medical bills and provide you extra income when laid up. It takes more than a single policy to meet today's high cost, that's why a combination of N. A. policies can do a paying job for you. The folks in this list of claims each carried several N. A. policies — notice the large payments.

You may find a friend's name in this list.

Robert E. Knaggs, Altamont, N.Y. $ 627.42
Truck acc.—fractured ribs
Frederick P. Kendall, Altamont, N.Y. 430.00
Bulldozer acc.—frac. & amputated thumb
Robert M. Stalker, Belmont, N.Y. 1113.80
Kicked by cow—crushed jaw
Eunice B. Seward, Cuba, N.Y. 1147.94
Cutting meat—severe cut hand
Roscoe Whittaker, Whitney Point, N.Y. 679.71
Fell off ladder—frac. heel
Glenn McNamara, South Dayton, N.Y. 2045.00
Knocked down by cow—inj. back
Philip M. Snyder, East Randolph, N.Y. 1045.24
Target shooting, bullet ricocheted—inj. chest
Jerald Hintz, East Otto, N.Y. 1595.00
Auto acc.—mult. injuries
John R. Giles, Locke, N.Y. 2362.88
Run over by truck—inj. leg
Henry Ketchum, Genoa, N.Y. 1300.00
Fell from haymow—frac. pelvis
Kenneth A. Davis, Westfield, N.Y. 768.56
Fell downstairs—frac. arm
Edward Bailey, Dunkirk, N.Y. 207.84
Fell off ladder—frac. arm
Ernest Rammelt, Westfield, N.Y. 574.42
Slipped and fell—inj. back
Kim M. Watts, Pine City, N.Y. 310.48
Roller skating, fell—broke arm
Verna G. Larison, Van Etten, N.Y. 488.45
Fell—inj. back
Leelynd Stout, Smithville Flats, N.Y. 387.71
Bitten by dog—inj. face, neck
Josephine Supensky, Norwich, N.Y. 1532.85
Getting in car, fell—frac. knee
Joseph Leduc, Champlain, N.Y. 3046.45
Kicked by cow—inj. back
Monroe E. West, Chazy, N.Y. 600.00
Truck acc.—mult. inj.
Viva M. Hyer, Cuyler, N.Y. 645.00
Auto acc.—multiple injuries
Wilson MacIntire, Cortland, N.Y. 804.60
Caught in V-belt—inj. finger
Lawrence Riddell, Hobart, N.Y. 464.04
Tractor acc.—inj. head, back
Gary A. Hawley, DeLancey, N.Y. 2414.31
Auto acc.—cut and bruises
Sandra Champlin, Hobart, N.Y. 670.00
Unloading hay, slipped and injured knee
Gertrude Scaccia, LaGrangeville, N.Y. 100.00
Lawnmower acc.—broke ankle
Joseph Catalano, North Collins, N.Y. 3494.31
Slipped and fell—inj. back
Joseph E. Smith, Springville, N.Y. 1830.00
Repairing silo unloader, fell—inj. back, ankle
Gordon J. Smith, E. Concord, N.Y. 1669.28
Slipped unloading sawdust—inj. knee
David Sherman, Westport, N.Y. 322.40
Auto acc.—multiple cuts and bruises
Reginald A. Carver, Willsboro, N.Y. 145.00
Cut forehead with power saw
Lester Carter, Chateaugay, N.Y. 916.84
Fell into barn cleaner—severe cut heel
Lawrence J. Carey, Chateaugay, N.Y. 960.40
Thrown by bull—inj. shoulder
Gordon C. LaGrange, Johnstown, N.Y. 321.32
Fell off tractor—inj. spine
James McCullough, Northville, N.Y. 165.55
Fixing lawn mower—cut fingers
Charles W. Truesdell, Batavia, N.Y. 1495.72
Crushed by bull—inj. skull, rib
Lucille M. Bradley, Pavilion, N.Y. 1003.55
Auto acc.—cut tongue, broke ribs
Jonas Borkholder, Oakfield, N.Y. 579.25
Fell from hi-lift—broke arm, cuts & bruises
Betty J. Sickler, Lanesville, N.Y. 220.00
Fell off ladder—frac. knee
Mary C. Sarafin, Jordanville, N.Y. 1182.14
Caught foot, fell—frac. hip
Joseph Bono, Frankford, N.Y. 700.23
Hit by truck—frac. arm
Carl T. Ozog, Poland, N.Y. 1392.86
Slipped and fell—frac. knee
William O. Eggleston, Theresa, N.Y. 2141.30
Pipe fell on foot—severe injury
Garmon A. Roggie, Woodville, N.Y. 2055.00
Power shaft acc.—inj. shoulder, arm, ankle
William Weaver, Adams, N.Y. 1186.00
Slipped and fell—injured back
Donald H. Campany, Lowville, N.Y. 1560.00
Rock fell on hand—severe injury
Clarence Briot, Croghan, N.Y. 1983.00
Kicked by cow—inj. knee
Dorothy Woolschlager, Lowville, N.Y. 2579.29
Slipped on bus steps—inj. back
Ronald L. Thompson, Hunt, N.Y. 310.70
Crushed by cow—inj. back
Ida M. Fischer, Bouckville, N.Y. 1116.11
Slipped and fell—inj. ankle
Joseph R. Eaton, Georgetown, N.Y. 1642.86
Auto acc.—multiple injuries
David J. Burns, Scottsville, N.Y. 435.00
Fell—injured back

Gerald E. Rouse, Fort Plain, N.Y. $1192.86
Slipped and hit elbow—inj. arm
Robin E. Rouse, Fort Plain, N.Y. 391.70
Knocked down by cow—injured chest
Edwin S. Camp, Oriskany Falls, N.Y. 1189.50
Fell from ladder—injured ankle
Kinga G. Mierek, Westerville, N.Y. 1128.57
Stepped on nail—injured foot
David T. Watkins, Skaneateles, N.Y. 1293.57
Tree fell on insured—inj. spine
Lena E. Dennis, N. Syracuse, N.Y. 667.84
Auto accident—inj. neck
Martin Gourneen, Holcomb, N.Y. 1130.00
Fell from truck—cut face
Lillian Guile, Victor, N.Y. 350.00
Fell—inj. shoulder, arm, hip, leg
Fred DeBella, Warwick, N.Y. 1800.00
Fell loading crates—inj. back
John R. Kinsey, Holley, N.Y. 1020.00
Auto accident—inj. knee
Leon Allen, Albion, N.Y. 1332.14
Run over by tractor—frac. pelvis
Willard Ellis, Altmar, N.Y. 1985.00
Crushed by cow—inj. back
Barbara Lilley, Otego, N.Y. 962.59
Auto accident—frac. pelvis
Ralph Osterhoudt, Richf'd Sprgs., N.Y. 458.55
Caught hand in tailgate—inj. fingers
Newell O'Brien, Hermon, N.Y. 433.81
Fell from ladder—inj. chest
Jane C. Young, Heuvelton, N.Y. 632.53
Slipped and fell—broke ankle
Edward F. White, Norfolk, N.Y. 597.55
Fell on blacktop—frac. jaw
Robert F. Normile, N. Lawrence, N.Y. 510.46
Tripped—inj. shoulder
Otis Wright, Schenectady, N.Y. 1347.85
Fell—injured head
Robert Stilwell, Charlotteville, N.Y. 1219.64
Auto accident—multiple injuries
Milton D. Lape, Cobleskill, N.Y. 805.23
Cut fingers while sawing
Franklin J. Parrott, Cayuta, N.Y. 562.17
Slipped and fell—inj. back
Eleanor R. Beerse, Seneca Falls, N.Y. 951.45
Slipped and fell—multiple injuries
Frederick Robson, Sr., Waterloo, N.Y. 2135.00
Crushed by cow—inj. back
Walter L. Sherman, Troupsburg, N.Y. 1150.00
Fell—frac. pelvis
George R. Muller, Bath, N.Y. 1153.82
Fell—inj. back
Norman D. Schenck, Greenwood, N.Y. 2472.13
Kicked by cow—inj. hip
Bertha Kobylenski, Calverton, N.Y. 410.20
Slipped and fell—broke ankle
Ruth Van Galder, Candor, N.Y. 1000.00
Auto acc.—multiple injuries
Louise A. Coney, Owego, N.Y. 1386.78
Fell—frac. pelvis
Kenneth C. Katzenstein, Ithaca, N.Y. 547.26
Auto acc.—inj. back
George H. Reid, Greenwich, N.Y. 1007.47
Fell—multiple injuries
Raymond Welker, Jr., Macedon, N.Y. 1455.70
Slipped getting off machine—inj. back
Carl H. Abraham, Palmyra, N.Y. 1154.50
Slipped and fell—frac. leg
Bernard Stedman, Attica, N.Y. 1068.43
Auto acc.—multiple injuries
William R. Gaston, Pavilion, N.Y. 1474.93
Slipped and fell—inj. knee
Eldon Paddock, Penn Yan, N.Y. 1846.42
Fell—inj. ribs, collarbone, lung
Jack C. Arnold, Athens, Pa. 1205.70
Tractor turned over—inj. leg
Ralph Kline, Troy, Pa. 1200.00
Kicked by cow—inj. leg, foot
Peter Koman, Edinboro, Pa. 577.04
Hit by cow—crushed jaw
Peter Santini, Stewartsville, N.J. 511.40
Hit by car—broke leg
Elizabeth Hoffman, Califon, N.J. 589.72
Fell—frac. arm
Roland Coleman, Jr., Elmer, N.J. 549.00
Fell from ladder—broke back
Leonard Truszkowski, Somerset, N.J. 1096.39
Pushed by cow into window—cut fingers
Gene Tilstra, Milford, N.J. 733.36
Auto acc.—broke teeth, inj. shoulder
John S. Gill, Center Rutland, Vt. 502.78
Auto acc.—broke teeth
Iva Fisher, Bartonsville, Vt. 1207.14
Fell—frac. ankle
Maynard C. Squires, Brattleboro, Vt. 1235.00
Handling plywood, wind caught it—inj. knee
Irene C. Wood, Greenfield, Mass. 911.08
Fell down steps—inj. leg
Steven Siciak, Bernardston, Mass. 1000.00
Fell—frac. knee
Stella Bumford, E. Barrington, N.H. 1249.28
Fell—frac. hip

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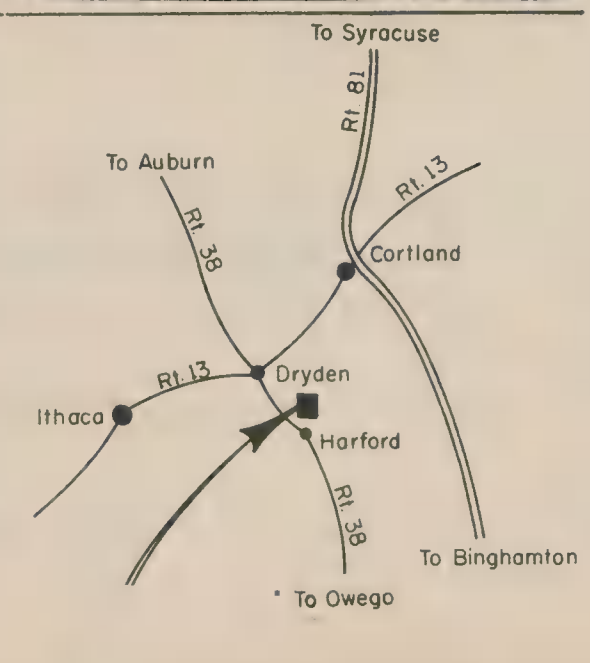
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Empire Farm Days

August 7, 8, 9

Dryden, New York



Tour . . . . .

(Continued from page 23)

on a beautiful beach, and another attraction is watching the traditional and stirring torch lighting ceremonies, an old and cherished Kauai custom.

Like all American Agriculturist tours, our Hawaiian Holiday is an all-expense trip, with everything included in the ticket price — all transportation and baggage handling, all scheduled sightseeing, most meals and tips. We have purposely omitted a few meals when you are at leisure in Waikiki, so you can have the fun of trying some of Honolulu's excellent restaurants. Our tour escort arranges everything for you, so you have no travel worries of any kind.

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UNDERCOVER WORK

A wife who really is wanting to share,
To learn of her husband's business affair,
Will find that much better than picking and prying
Is to mention the things she is thinking of buying.

by Roy Z. Kemp

Garden . . . . .

(Continued from page 22)

meter sends impulses to a recorder which etches jagged lines on a roll of graph paper.

Whenever we write about plant emotions, we get letters mainly from college professors who pooh-pooh the idea. Home gardeners who raise good crops tell us they talk to their plants, whether African violets or zinnias. What do you think? Do plants respond to love, hate and other feelings? Write and tell us.

Summer Squash

Check your squash and pumpkins to see if the vines are wilted. If so, this might be the work of the squash borer. Sometimes you can dig out the pest and stab it with a knife. Cover the wounded stem with soil, and it will re-root. Dusting with Sevin will help check or prevent squash borer and beetle damage.

Summer squash takes about 50 days to mature, so you still have time to make a sowing if you haven't already done so. Squash dishes are a good substitute for meat. Try **Aristocrat,** a 1973 All-America winner, or **Zucchini Elite,** another fine hybrid.

AA Garden Clinic

A reader writes, "This spring we planted a pin oak, and now I've been told that it is a very slow grower and has many troubles. Is this true?"

Answer — No. The pin oak is one of the fastest growing of all the hardwood trees and is probably the fastest growing oak. It makes a good street and lawn tree. It often starts no leaves until well into July, so be patient with yours. It should have leaves soon. Pin oak reaches a height of 50 feet, is hardy and no harder to grow than other shade trees.

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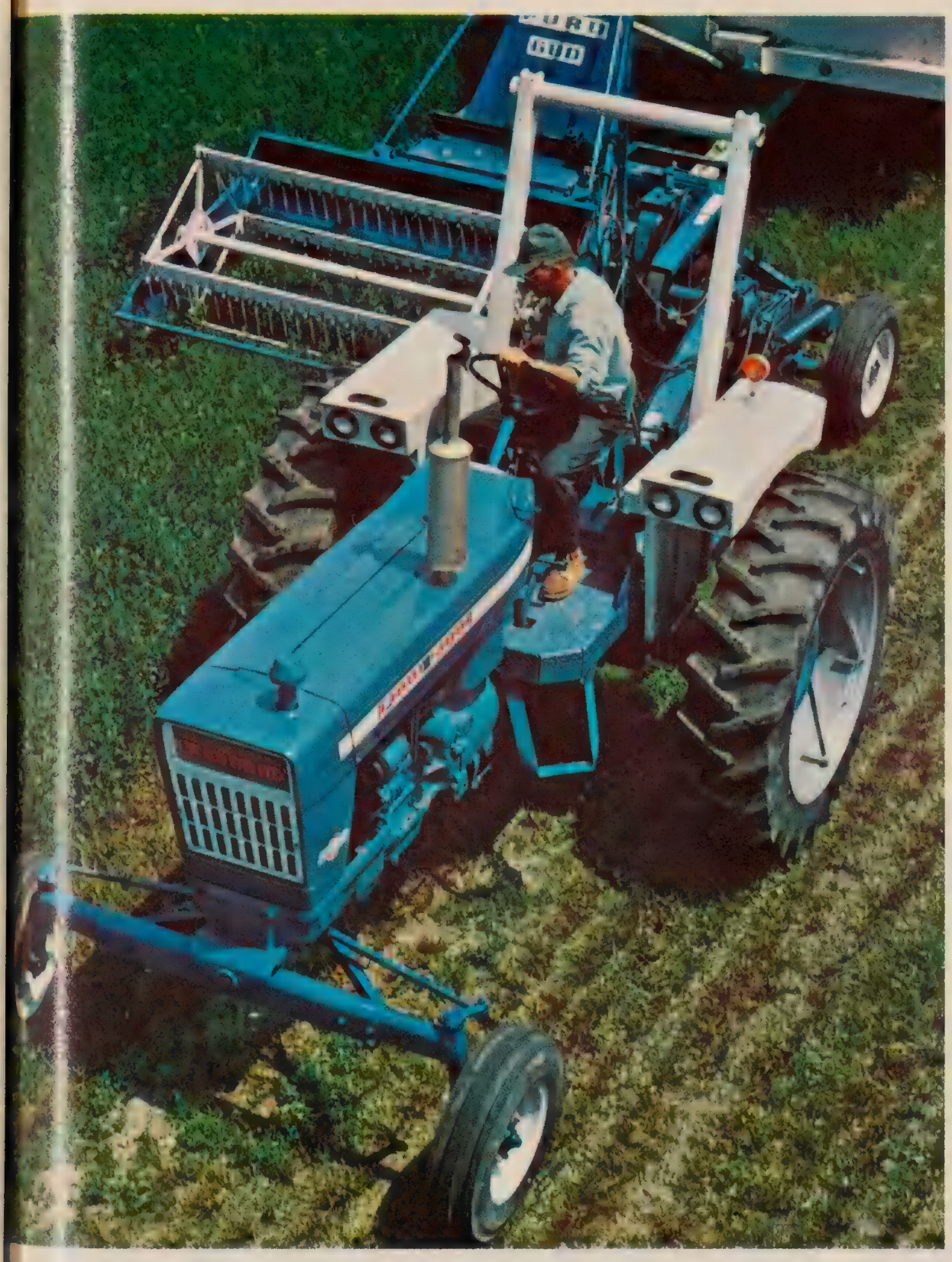
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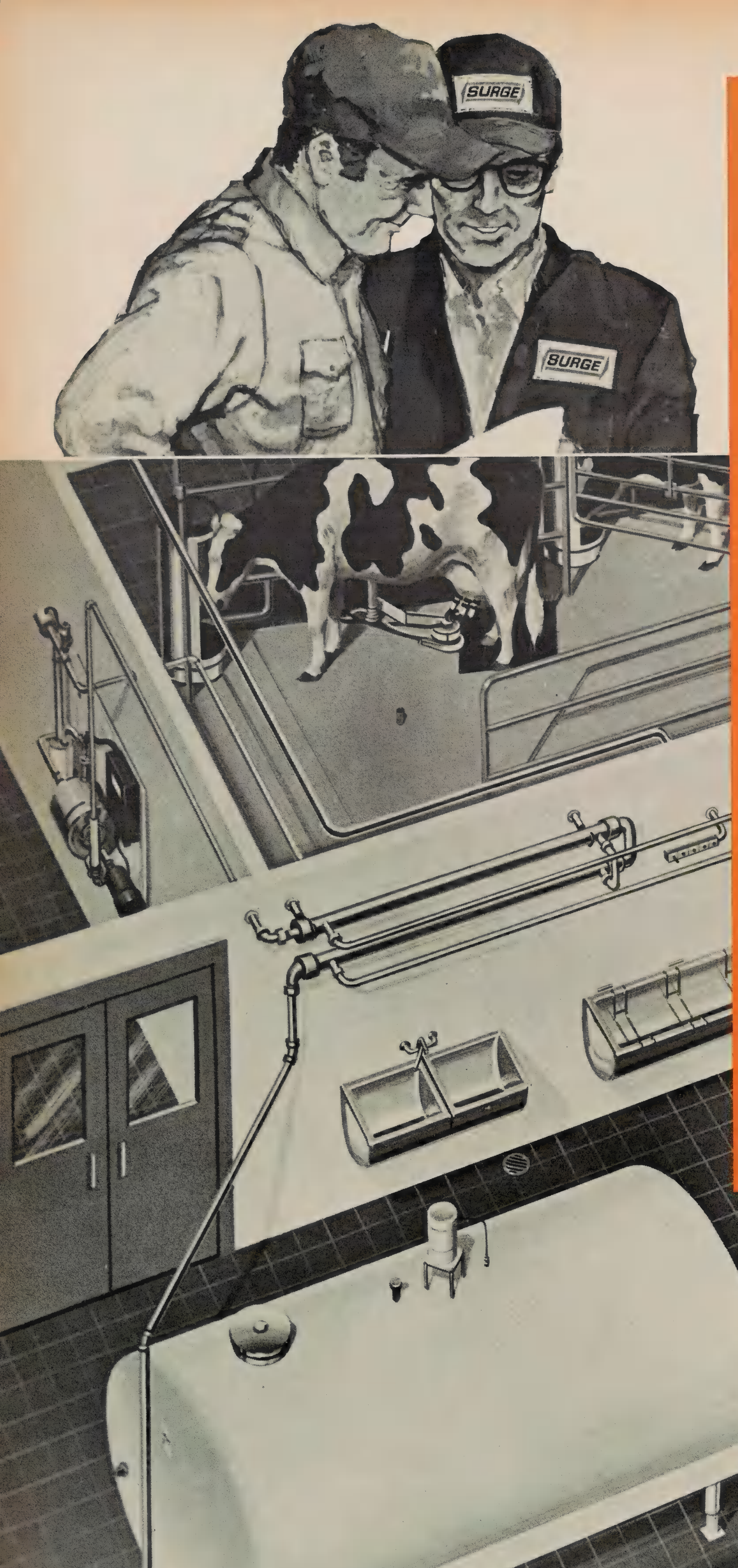


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This 52-hp Ford 4000 teams with a Big Blue wagon for fast, easy bunk feeding. Strength, stability and sure handling make Ford all-purpose tractors excellent for loader work, too. Diesel or gasoline. All-purpose or row-crop. We'll customize a Ford 4000 or 5000 with options and accessories that suit you best.

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For The Northeast Farmer

AUGUST 1973

American Agriculturist
and the
RURAL NEW YORKER

EMPIRE FARM DAYS

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See the Ford Tractor Exhibit at Empire Farm Days, August 7, 8, 9, Dryden, N.Y.

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American Agriculturist and the RURAL NEW YORKER

Vol. 170, No. 8

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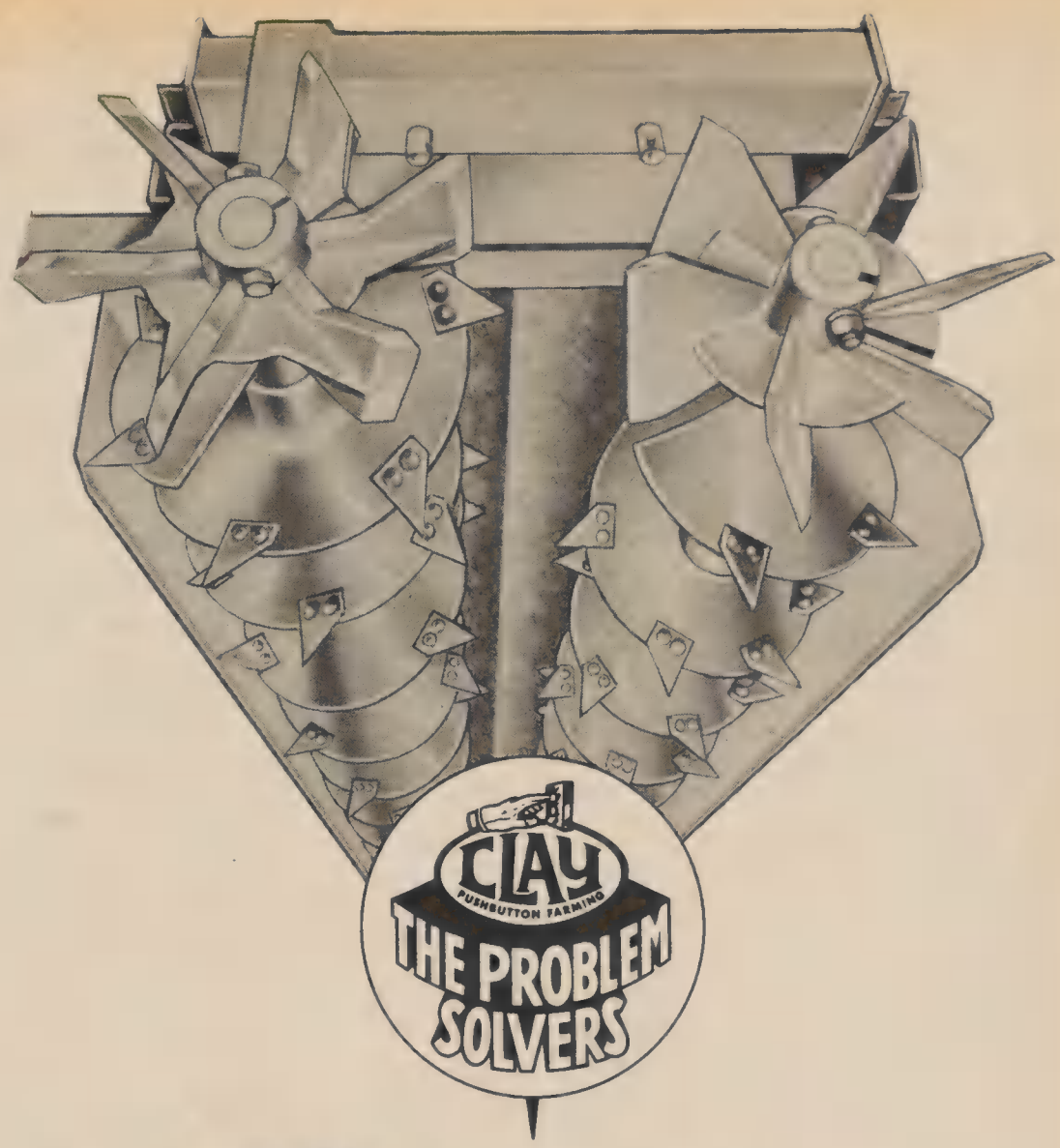
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OUR COVER

This is the site of the 1973 Empire Farm Days . . . to be held (as it was in 1972) at the research farm owned by Cornell University south of Dryden, New York. Photo: C. Hadley Smith

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STATE FARM MAGAZINES FIRST WITH FARM FAMILIES
APPA



2 Great Problem Solvers from Clay

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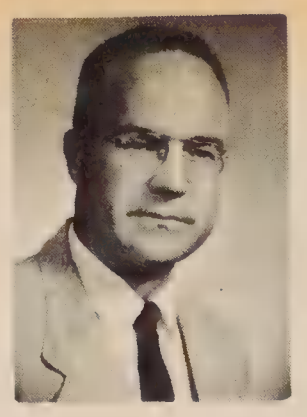
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EDITORIALS

by GORDON CONKLIN



NO FAMILY FARMS

I received a letter from a professional writer recently; among the remarks contained therein was a brief report on a series of interviews with people boycotting the meat counters of supermarkets. The writer reported that the boycotters were not mad at family farmers . . . because they didn't believe there **are** any family farmers. Instead, the boycotters were convinced that food is produced in these United States by huge corporate farms, or by giant conglomerates . . . and it's fashionable to knock such organizations with boycotts and denunciations.

It's a fascinating study to learn how easily non-farmers are misled by sensational (and sometimes irresponsible) stories in the mass media. Every now and again I see one of those stories by someone who has visited a huge corporate farm, and leaps to the assumption that there aren't any other kind.

It's my privilege to have visited hundreds of family farms across the land, and I assure you most of them are healthy economic enterprises. The truth is, on a national basis, that only one percent of our farms are incorporated . . . and two-thirds of these are **family farms,** incorporated for greater flexibility of business organization. Corporate farms produce about eight percent of the nation's food.

We're inundated on all sides by information that may or may not be entirely accurate. Before accepting it at face value, let's at least check with the people whose life work involves assembling information about that specific facet of the passing parade.

Most any professional agricultural economist or county agent can clear up very quickly the question some non-farmers ask, "What became of the family farm?" The answer is that it's still going strong!

PERSPECTIVE

Amidst the tumult of our times, it's interesting now and again to look back in bound volumes of AMERICAN AGRICULTURIST to see what items made up the tumult of bygone years. So I browsed through some 1923 issues recently, and some quotations sounded very much up-to-date:

Nathan Straus, then chairman of the Agriculture Committee of the New York State Senate, commented, "But larger crops on the farm have not resulted in increased prosperity for the farmer. The spread between producer and consumer must be reduced if improved farming conditions are to be reflected in increased prosperity for the farmer."

Ed Eastman, away back then, was lamenting about a problem that has become very much worse, "One cannot pick up a newspaper without reading about automobile accidents. Hundreds of people are horribly mangled and killed every day by automobile accidents." Now, as then, this is a problem to which our society has never really seriously addressed itself.

Speaking of agriculture as a whole, George Slocum, president of the Dairymen's League, commented, "It is strange that this industry, perhaps the most human, certainly the most necessary in the whole line of men's work, if men are to continue to work at all, should be the least understood."

Henry Morganthau, Jr., then owner of AMERICAN AGRICULTURIST (and a "gentleman farmer"), voiced an ageless admonition, "The farmer's problem of selling his crops to the best advantage is, in my opinion, the most serious one that faces him today."

Jared Van Wagenen, Jr. sounded as relevant as tomorrow with his report, "Last week I appraised six farms for the Federal Land Bank and two of them were occupied by 'Back-to-the-Landers' . . . poor, helpless, ignorant babes in the woods who made a fearful, almost tragic mistake in leaving behind them a secure place in the world and then faring gaily forth into a life of which they knew nothing."

Ed Eastman, seeing the infighting among milk cooperatives in 1923 commented, "And the dealers with their good business sense will know their good profits will continue as long as they can succeed in keeping the farmers divided and more interested in laying the blame for their troubles upon one another than they are in getting together into some kind of real federation that could meet dealers on their own ground."

The scripts and scenery change, but human beings remain remarkably similar across the generations. The "generation gap" is created in the minds of people of differing ages . . . but they are far more alike than they would be willing to admit.

THE PART-TIMER

As recently as 1954, the income of the farm population was reported by the USDA to be $12.5 billion from **farm** sources, and $6 billion from **non-farm** sources. By 1969, this had become $15 billion from farm sources and $13 billion from non-farm ... . a substantial growth in the proportion of income from non-farm activities. Some of this change involves growing numbers of part-time farmers.

For several decades, we have come to think of part-time farming as a way to get **out** of farming . . . a sort of way-station on the path to leaving agriculture. Now, however, the part-timer is emerging as a rather permanent part of the farm "mix."

An increasing number in this group are successful business executives and professionals who enjoy farming, and find as fringe benefit the tax advantages of converting ordinary income into capital-gains income. Others are marginal farmers who find that they can handle a full-time job in addition to farming nights, holidays, and on weekends . . . recapturing thereby the fixed investments they may have made in previous years, and raising the family income by long hours on two jobs.

I'd hate to see any prohibition of this part-timer category. It doesn't add much volume to the competition in the marketplace . . . and it offers a lot of people satisfying work, along with a great place to live!

PANDORA'S BOX

Both New York and New Jersey legislators introduced proposals this year to permit anyone to go to court and accuse anyone else of polluting air, water, or soil.

Existing legal theory has held for many years that a person must prove damage to **his own** person or property in order to successfully sue another person in civil action. The proposed legislation would change that so a vacationer from New York City, for instance, could sue a fruit grower in the Champlain Valley merely because the traveling New Yorker saw the farmer spraying fruit trees.

It seems to me that such proposals would open a Pandora's Box of problems. The precise definition of what constitutes pollution is still very much up in the air . . . and agriculture sure doesn't need an additional source of harassment to compound the existing woes of bureaucratic inspections and endless regulations!

Furthermore, such laws would extend an invitation for a year-round open season to pick on someone you don't like. If some unfortunate farmer got crosswise of a well-heeled opponent (wherever the latter might reside) the poor tiller of the soil could be in court for years . . . accused of one "pollution" violation after another. Whether or not there was merit to the accusations, the farmer would be forced to take time and money to defend himself.

Farmers over the Northeast need to watch this situation, and fight the passage of such laws.

GUEST EDITORIAL

"Once you start trying to rely on freezes and wage and price controls, if inflation continues it is easy to decide that the reason must be that the controls were inadequate. But it cannot be repeated too often that inflation is not caused by a lack of controls. Controls are efforts to deal with effects, rather than dealing with basic causes. The basic causes of inflation are: too big an increase in the money supply, too much government spending, an imbalance in supply and demand, and inadequate competitive forces to keep the costs of goods and services down and productivity up.

"Somewhere, off there at the end of the primrose path, lie some unpleasant possibilities. Maybe we can be happy with rationing, with excessive bureaucratic controls and mandatory allocations, with black markets and reduced freedom of choice and economic stagnation. But if we can't, if we want to get back on the right course, we'd better understand that the decisions on controls are going to get tougher and there is no painless way to defy the laws of economics by legislating that they don't apply and that their effects are illegal." — *Congressman Barber Conable, 35th District, New York.*

NEW ERA?

There is an awful lot of talk going around about "a new era for American agriculture." As a result of rising purchasing power in much of the world, and a desire by most people for livestock products, producers of feed grains are being told that their long-run export possibilities are limitless.

Unfortunately, northeastern dairy farmers are on the "down" side of that teeter-totter. They must **buy** feed grains, and have found the foreign competition pretty stiff lately. Soybean oil meal hit $453 per ton in June; both the region's poultrymen and dairymen wince noticeably every time they think of buying feed.

To compound the problem, federal authority has been granted for larger imports of dairy products **into** the United States. Government policy, then, has played a part in pushing up feed costs by encouraging exports of grains . . . and simultaneously put downward pressure on milk prices by encouraging dairy imports.

If a new era of enhanced profitability is indeed coming for agriculture, it apparently does not include the dairy and poultry industries of the Northeast. Dairymen desperately need an increase in milk prices for the short run . . . and, for the long run, an economic formula for pricing milk that is sensitive to increases in the **costs** of producing milk.

THE PASSING PARADE

The Sunday-school teacher had been working hard for several weeks to acquaint the youngsters with the parables found in the Bible.

Finally, one day she asked each one to tell which one he or she liked best.

Little Johnny replied, "The one about the multitude that loafs and fishes."

American Agriculturist, August, 1973

Dates to Remember

Aug. 1-2 - Field Day and Tour, Hudson Valley Research Laboratory, Highland, N.Y.

Aug. 6-9 - 45th Annual National Institute on Cooperative Education, Tulane University, New Orleans, La.

Aug. 7-9 - Empire Farm Days, Cornell Animal Research Center, off Rt. 38, near Dryden, N.Y.

Aug. 8 - Annual Plant Science Day, Lockwood Farm, Hamden, Conn.

Aug. 8-10 - Annual Meeting National Live Stock and Meat Board, Omaha Hilton Hotel, Omaha, Neb.

Aug. 9-10 - Annual Pageant of Steam, Canandaigua, N.Y.

Aug. 9-12 - Addison County Farm & Home Field Days, New Haven, Vt.

Aug. 12-15 - 27th Annual Convention, National Association of Animal Breeders, Marriott Hotel, New Orleans, La.

Aug. 14-18 - 4th Annual Shorthorn Show, Sandy Creek Fair, Sandy Creek, N.Y. Judging on Aug. 17 a.m. by Clarence Worden.

Aug. 15-19 - Washington County Old-Fashioned Country Fair, Fairgrounds, Richmond, R.I.

Aug. 17-19 - NYS Woodsmen's Field Days, Fairgrounds, Boonville, N.Y.

Aug. 18-21 - 78th Annual Convention, National Hay Association, Troy Hilton Hotel, Troy, Mich.

Aug. 19-22 - 64th Annual Meeting, Northern Nut Growers Association, Franklin & Marshall College, Lancaster, Pa.

Aug. 19-22 - Annual Meeting, American Society for Horticultural Science, North Carolina State University, Raleigh, N.C.

Aug. 21-22 - Maine Farm Days, Caverly Farms, Clinton, Me.

Aug. 21-22 - Annual Stockholders' Meeting, Springfield Bank for Cooperatives, Baystate West Motor Hotel, Springfield, Mass.

Aug. 25 - Central Maine Egg Festival, Pittsfield, Me.

Aug. 28-30 - Agricultural Progress Days, Milton Hershey School Farms, Hershey, Pa.

Aug. 27-Sept. 3 - New York State Fair, Syracuse, N.Y.

Sept. 1-2 - Annual Convention NYS Trappers Association, Piseco, N.Y.

Sept. 3 - Apple Harvest Festival, Wolcott, N.Y.

Sept. 6 - Cornell's Aurora Farm Field Day, Aurora, N.Y.

Sept. 7-9 - 50th Annual Yorktown Grange Fair, Yorktown Heights, N.Y.

Sept. 13 - NYS Guernsey Sale, Zogg Sales Pavilion, Cortland, N.Y.

Sept. 14-16 - SPICE Annual Meeting, Edgewood Resort Hotel, Alexandria Bay, N.Y.

Sept. 14-17 - New England 4-H Horse Show at Eastern States Exposition, West Springfield, Mass.(Sept. 14-23)

Sept. 15-16 - 2nd Annual Busti Pioneer Craft Festival, Busti, N.Y.

Is this drip really necessary?



Not with an All-Season® Ventilation System on the job!

Jamesway works so you can farm

No sweat! Control condensation and harmful drafts automatically with an All-Season Ventilation System

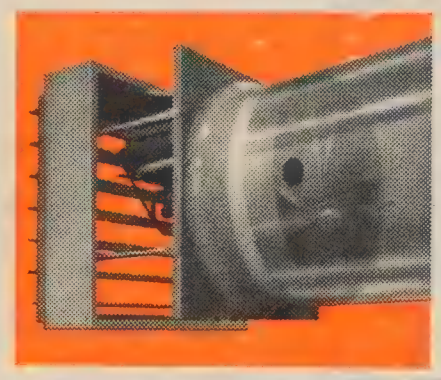
Comfortable, healthy, and profitable environment is what a Jamesway All-Season Ventilation System is all about. It's a complete system of matched components (not just fans) tailored to your building and to your production needs. The result is properly controlled conditions in cold, mild, and hot weather. It's a system for all seasons.

What does proper control of the environment accomplish?

What a Jamesway ventilation system does, it does *automatically.* This enables you to concentrate on productive work while it works to do four important profit-saving jobs for you: 1) Removes foul air, gases and moisture 2) Distributes fresh air throughout the entire building uniformly without harmful drafts 3) Controls condensation on walls and ceilings 4) Reduces wide temperature fluctuations.

How it pays off for you

It can pay off big through increased production. Dairy cows produce more milk and beef cattle gain faster and more uniformly when wide variations in temperature are controlled. When you add the benefits of greater comfort and health it's easy to see that no confinement structure should be without an All-Season Ventilation System. This system improves "building health", too — results in longer useful life for your buildings.





Here's how the All-Season system works

Fans run continuously to recirculate and distribute room air to all parts of the building without drafts by blowing it through the series of holes in the seamless polyethylene tubes (shown above). Fresh air is provided whenever exhaust fans in the wall turn on and the motorized shutters (shown in inset above) automatically open. The circulating fans then mix room air with the fresh air entering through the shutters. This blended, tempered air is evenly distributed into the building through the intake tubes. When the exhaust fans shut off and the shutter closes, the All-Season System continues to circulate room air to maintain comfort.

But don't take our word for it — ask a neighbor who owns a Jamesway

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Exclusive Hot-Dip galvanizing keeps Jamesway barn equipment on the job years longer

Chances are you've seen Jamesway barn equipment that seems to go on forever. Hot-Dip galvanizing means dipping equipment into melted zinc at 840 degrees temperature. It literally bonds two metals, inside and outside. Protects where corrosion and rust hit the hardest. Far outlasts aluminum paint and ordinary plating. See your Jamesway Dealer for stalls, stanchions, pens, water cups, barn and milking parlor stalls, automatic parlor feeders, cow mats, silage carts and all barn accessories. VEBED



You can count on us for quality products, fast installation, prompt service and dependable parts.

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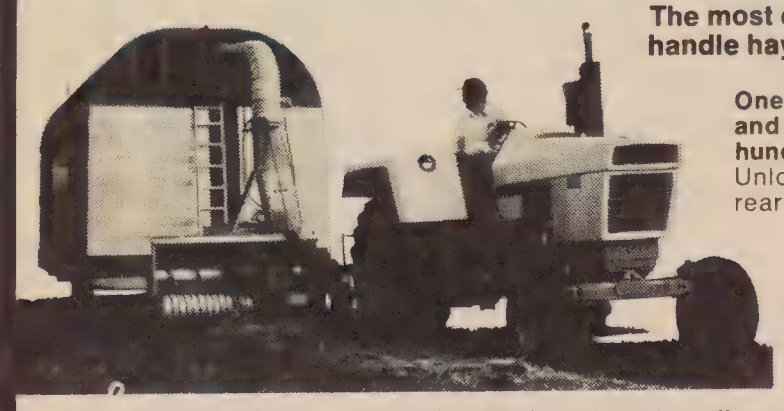
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Alexander—H. D. Brown & Son	716-343-5981
Amsterdam—Albert Anderson	518-842-1762
Argyle—Jack's Surge Service	518-638-8382
Baldwinsville—R. C. Church & Sons, Inc.	315-635-3551
Bangor—Southworth Farm Supplies	518-483-2557
Bath—Helm Agric. Equipment	607-776-6220
Blossvale—Jay's Sales & Services, Inc.	315-337-7140
Cairo—Cole's Farm Equipment	518-622-3389
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With a McKee Rotary Snow Plow you blow snow away . . . way out of the way. Your plowing job lasts longer because drifting is virtually eliminated.

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CORN HOG

Eliminates costly drying and storage systems and the need for day to day grinding for feed.

Grinds up to 20 tons per hour *at harvest time* and blows into storage.

Comes complete with steel skid base, three point hitch (for transportation), heavy duty PTO assembly, 9" grinding chamber, 20" throwing chamber. Grinds dry or high moisture, shelled or ear corn. Weighs 850 lbs.

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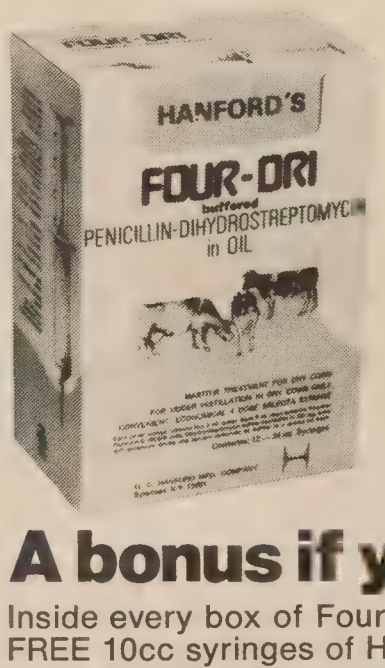
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Doc Mettler comments on:

Hazards to their health

ROBERT Frost's poem "The Pasture" describes his pleasure in walking through a pasture to clean the leaves from a spring, and watching the water run clear again. In our hurried big business of farming today, we sometimes forget to do the simpler things such as checking our pastures or even looking around the back recesses of barns and barnyards where cattle are confined and can get into things that can cause trouble.

Human health authorities stress the importance of walking as the best form of exercise . . . needed even by a farmer who, though he works hard, spends much of his time riding on a tractor or standing in a milking parlor. A benefit of walking not often mentioned was recognized by Robert Frost and noted in many of his poems . . . the simple joy and pleasure a person receives from the things he can observe while walking. Others who rush about never know these things exist.

Travel

In the type of practice I do, as is the case with most large-animal veterinarians, travel is a fact of life. In the past four years, I have driven more than 125,000 miles and traveled by plane more than 200,000 miles . . . but once I get where I am going, I can learn more by a walk around the premises than any other way. I may have to put on boots to get through the mud, or crawl through a few fences to see what I want, but by walking I can learn most about the environment surrounding the herd.

There may be veterinarians who can advise a livestock owner on how to handle his herd-health problems by sitting behind a desk consulting records, charts and the like. Most of the ones I know (and believe in), though, do a lot of physical exercise to make a diagnosis as well as using the all-important written records and charts.

A good example of the value of getting out back and looking around was a case I saw in mid-June. I had just arrived at a farm to do routine pregnancy and fertility exams when the barn phone rang. The excited voice of a usually-calm farm manager reported, "We just brought the heifers in to the yard for their grain and one looks like she is dying. She staggered as though she was drunk and now she is down. Her temperature is normal, but she feels cold to the touch and I am afraid she will be dead before you are due here."

Thoughts like, "How can I do a herd-health practice when these damn emergencies keep popping up?" went through my mind. However, I knew this man was resourceful in most instances, and if he felt he needed a veterinarian sooner than I was scheduled to arrive at his place two hours later, I'd better change my schedule.

Half an hour later, when I saw the heifer, my impression was that she certainly appeared ready to die. She was lying in a somewhat normal position, but her head and neck were extended along the ground and her ears dropped. The man who normally feeds the heifers remarked, "She looks a little better now." I wondered how bad she looked when he first saw her! He assured me that she had been fine the evening before.

The group of bred and open heifers that included this heifer had been pastured in a lowland pasture near the barn since early spring. They were grained once a day, and watched closely. All the rest looked healthy, and none were missing.

A halter was put on the sick heifer, and she was encouraged to stand. We attempted to bring her into the barn, but (though halter-broken) she was uncontrollable. Her pulse was normal, but very weak. Her breathing was fast and she acted as though each breath hurt. The odor of her breath was normal, and she had a good eye reflex.

The herdsman said she had appeared blind earlier, but there was no evidence of this now. The most noticeable sign was that her gums and vulvar lips both had a pale, chocolate appearance. Her temperature was a normal 102 degrees. As she fought the halter rope, she kept jetting small amounts of normal-appearing urine.

Treatment

It was decided to try a small dose of intravenous calcium and antihistamine as a non-specific treatment to detoxify her. When the intravenous needle was inserted in the vein, the fluid returning through the needle looked more like watery chocolate syrup than blood.

Because of the appearance of the blood, I made a tentative diagnosis of nitrate poisoning. Methylene blue injected intravenously is specific for this type of poisoning, but most cases I have seen similar to this have died regardless of treatment. Twenty minutes later, however, this heifer walked into the barn appearing nearly normal except for a peculiar goose-stepping gait.

In most suspected poisoning cases, if the patient recovered, I have never been **entirely** sure of my diagnosis. However, the "chocolate" blood is quite apt to be enough to make me **fairly** sure. Most important now was to find the source of the nitrate to protect the rest of the herd.

Unless there is a dump in the pasture, or an animal has been out of the regular pasture, the first place

to look for the source is **around the** edge of the pasture. No spraying or fertilization that anyone could recall had been done recently in or near the pasture.

The herdsman and I started walking the fence going north from the barn. The first thing we found was where recent rains had caused flooding of a manure tank which drained under the road into the pasture. All of the heifers followed us, and one of them proceeded to drink from the stream into which this manure had flowed.

It seemed as though we would have been justified to stop here, but ... as I mentioned earlier ... I **like** to walk. We went further and checked out an unused trench silo; nothing here but a few pieces of plastic. A neighbor's corn field bordered the north end of the pasture, and here I was sure I would find a part-bag of nitrogen fertilizer ... a common source of this type of poisoning on other farms. Again, though, we found nothing.

The far side of the pasture was interesting. We found lots of loose barbed wire, old steel fence post stubs sticking up that could cause lameness, but no source of nitrate.

Look Further

Further on, we came to an area with multiflora and other wild roses in full bloom. No problem here, either, but I took great pleasure in seeing a pink multiflora rose, something that I did not know existed. This made the walk worthwhile even if we did not find the source of the nitrate.

Where the small stream left the pasture there were frogs and fish, indicating that the water was not too contaminated. The herdsman suggested we get water samples from both ends of the stream to check for nitrate.

By the time we were back heading north again and had found nothing, we were sure that the manure had to be the source of the problem. Within fifty feet of where we started, however, we came to a place where weeds along the fence had been sprayed with a herbicide, were dead or dying, and had obviously been grazed. The spray used is not poisonous, but some plants after dying or wilting become high in nitrates.

None of the weeds we saw are normally eaten by cattle, but for some reason a few individual animals will eat dried or dying plants that they would not touch when green. You are probably more familiar with the fact that prussic-acid poisoning is often caused by certain plants in a wilting stage (such as wild cherry cut as brush, or sudangrass a few hours after freezing).

Samples of the manure drainage, the stream at its exit from the pasture, blood and urine from the now nearly normal heifer, and samples of the dead weeds were taken. To be safe, the dead weeds were cut short and removed ... and the part of the pasture involved with the overflow from the manure tank was fenced off.

By the next morning, the sick heifer was eating and drinking normally but even more surprising was the lab report. The manure drainage was normal for nitrates (102ppm) and the water from the stream was 24 ppm, but the plants showed 2,022 parts per million of nitrate. This is not as high as some things fed to cattle (such as some silage), but one animal eating a large amount of this material with little else in her rumen could become sick. If grazed earlier in the day before the plants had dried several hours in the hot sun, the nitrate content probably was much higher.

A concentration of nitrate fed all at once is far more dangerous than the same amount spread out over a normal feeding day. What kills the animal is not nitrate (NO_3) but nitrite (NO_2) which is released in the rumen from the nitrate and enters the blood stream. This nitrite ties up the hemoglobin in the blood so it cannot carry oxygen and the animal actually suffocates.

Various factors influence this release of nitrite from the nitrate; certain animals are more susceptible than others. This particular heifer must have been the only one of the group to really fill up on the dying plants ... plus being more susceptible. At any rate, since she did not die, I felt the concentration of over 2,000 parts per million was enough to consider the dying plants as the source of nitrate.

I could go on and on with examples of how getting out of the immediate area of the milking parlor or stable and looking around on foot have helped to find the real cause of disease or illness in everything from mastitis to foot rot, but never is it more important than with poisoning. You could, from time to time, get out and look around the back parts of your own farmstead and farm. Broken bottles, short pieces of barbed wire, protruding metal on abandoned farm machinery, dangerous woodchuck holes, paint cans, fertilizer bags and old automobile batteries are only a few of the hazardous things you should look for.

If you are like me, you will also look for such things as unusual wild flowers, or a turtle laying eggs on a stream bank. Looking for livestock health hazards will help **them** live longer, but the peace of mind and, yes, even the exercise you will receive from this type of walk will help **you** live longer!

I hope you'll try it.

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The heavy-duty "770" delivers great cutting plus great capacity!

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NEW YORK STATE FAIR

Schedule of Events

August 27-September 3

Monday, August 27

A.M.

8:30 4-H Livestock Judging

9:00 Judging Cheese and Butter

10:00 FFA and 4-H Demonstrations and Exhibits-until 4:00 p.m. daily

P.M.

3:00 Quality Beef Cattle Contest (Carcass Steers and Heifers)
4-H Livestock Bowl Contest

7:30 On-Foot Sheep Carcass Show

Tuesday, August 28

A.M.

7:30 FFA Dairy Showmanship Contest

8:00 Youth Dairy Cattle Judging; (all breeds except Holstein)
Wether Sheep Show
4-H Automotive Driving Skills Contest

8:30 NYS High School Marching Band Competition

9:00 4-H Beef Fitting and Showmanship Contest
4-H Swine Show

9:00 4-H Beef Heifer Show
Judging Poultry, Pigeons, Rabbits and Cavies – also Wednesday

10:00 Opening Day Ceremonies
4-H Sheep Show
Farm Barnyard for Children – daily
4-H Swine Showmanship
4-H Ornamental Horticulture Contest
Entertainment – Billy Thunderkloud and the Chieftones – also 4:00 and 6:00 p.m. – daily

10:30 4-H Swine Show

11:00 Food Demonstrations – also 12:30, 3:45 and 5:45 p.m. – daily

11:30 Auburn Children's Theater – daily
Flower Show Judging – dai
Grange Show – also 2:00 a
7:00 p.m. – daily

P.M.

12:00 4-H Dress Review – daily
Red Cross Safety Demonstrations – various times daily
Veterinary Surgery on Animal – also 2:30, 5:00 and 7:30 p.m. – daily
Entertainment – Mac Davis an
Bobby Vinton Show – also 7:3
p.m., and on Wednesday

12:30 Spelling Bee
4-H Beef Steer Show
Judging Jersey and Ayrshire

3:00 Open Steer Classes
Simplicity Fashion Show – als
6:00 p.m. – daily

5:00 Jack Kochman Auto Thrill Sho
– also 8:00 p.m. – daily

7:00 NYS Talent Hunt – daily
4-H Sheep Blocking and Trim
ming

8:30 Arena Athenas and the Saddle
Lites – daily at various times

Wednesday, August 29

A.M.

8:00 Tractor Operators Contest
Judging Open Class Brown Swiss, Guernsey, Milking Shorthorns
Polled Hereford Standard of Perfection Show – first time at fair
Swine Judging, Hampshire

9:00 Sheep Judging, Open Class Corriedale, Suffolk
Judging Youth Holstein Classes

9:30 Horse Pulling Contests

10:00 Dairy Goat Judging
Judging Polled Hereford Breeding Classes

11:15 Women's Day Coffee Hour

11:30 Holstein Steer Show

P.M.

12:30 Women's Day Luncheon
Judging Duroc Swine

1:00 Dairy Goat Milking Contest
Sheep Judging – Open Class Rambouillet, Southdown

2:00 Judging Horned Hereford Breeding Classes

3:00 Swine Judging – Open Class Poland

4:00 Horse Pulling Finals

7:00 Dairy Cattle Showmanship Finals

7:30 Sheep Judging – Open Class Dorset, Columbia
Swine Judging – Open Class Berkshire, Chester White
NYS Square Dance Festival

Thursday, August 30

A.M.

8:00 Swine Judging – Open Class Berkshires
Judging Open Class Jersey and Ayrshire
Judging Open Class Charolais Breeding Classes

8:30 FFA Safe Tractor Operation

9:00 4-H Poultry Science Judging Contest
Sheep Judging – Open Class Hampshire and Cheviot
Small Engine Trouble Shooting Contest
FFA Tractor Engine Trouble Shooting Contest
Dog Obedience Classes – various times throughout week

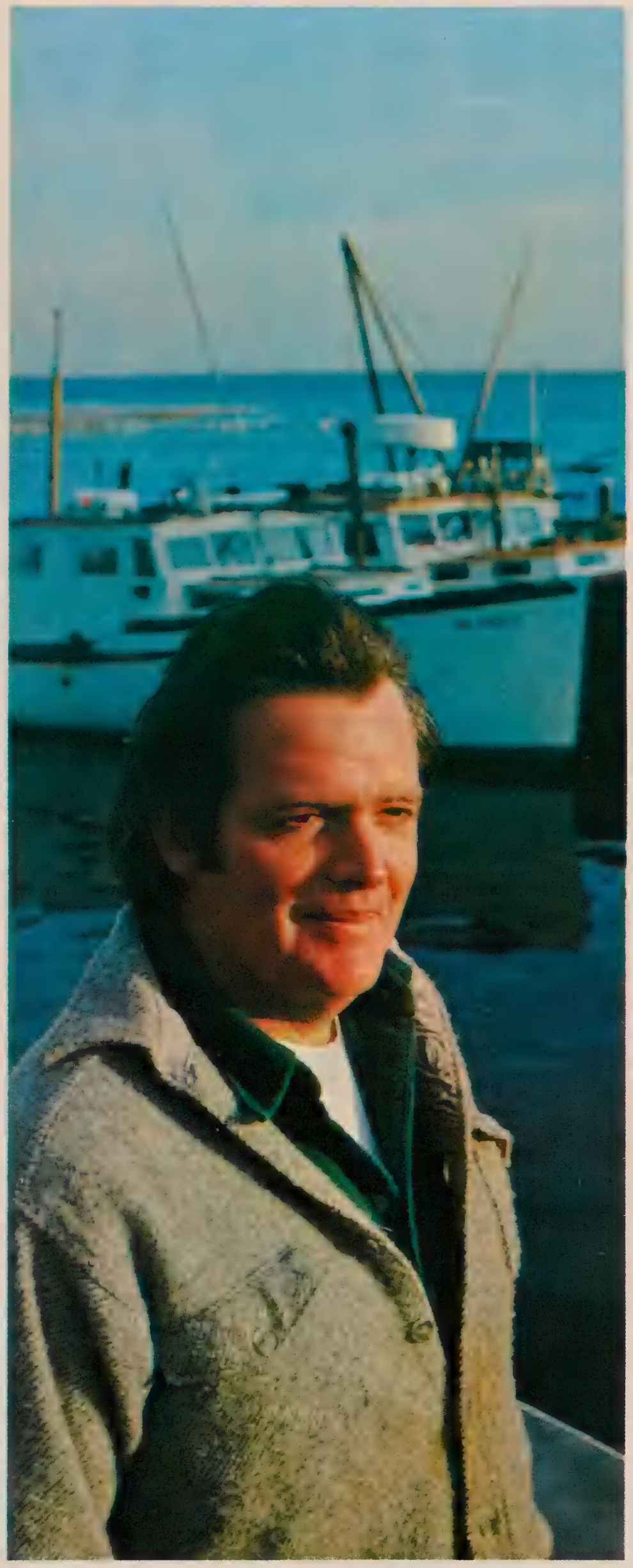
10:00 Judging 4-H Exhibits

P.M.

12:30 Supreme Champion Swine

1:00 NYS Sire Races, Trotters and Pacers
NY Purebred Dairy Cattle Association Calf Presentation
Judging Open Class Angus Breeding Classes

(Continued on page 10



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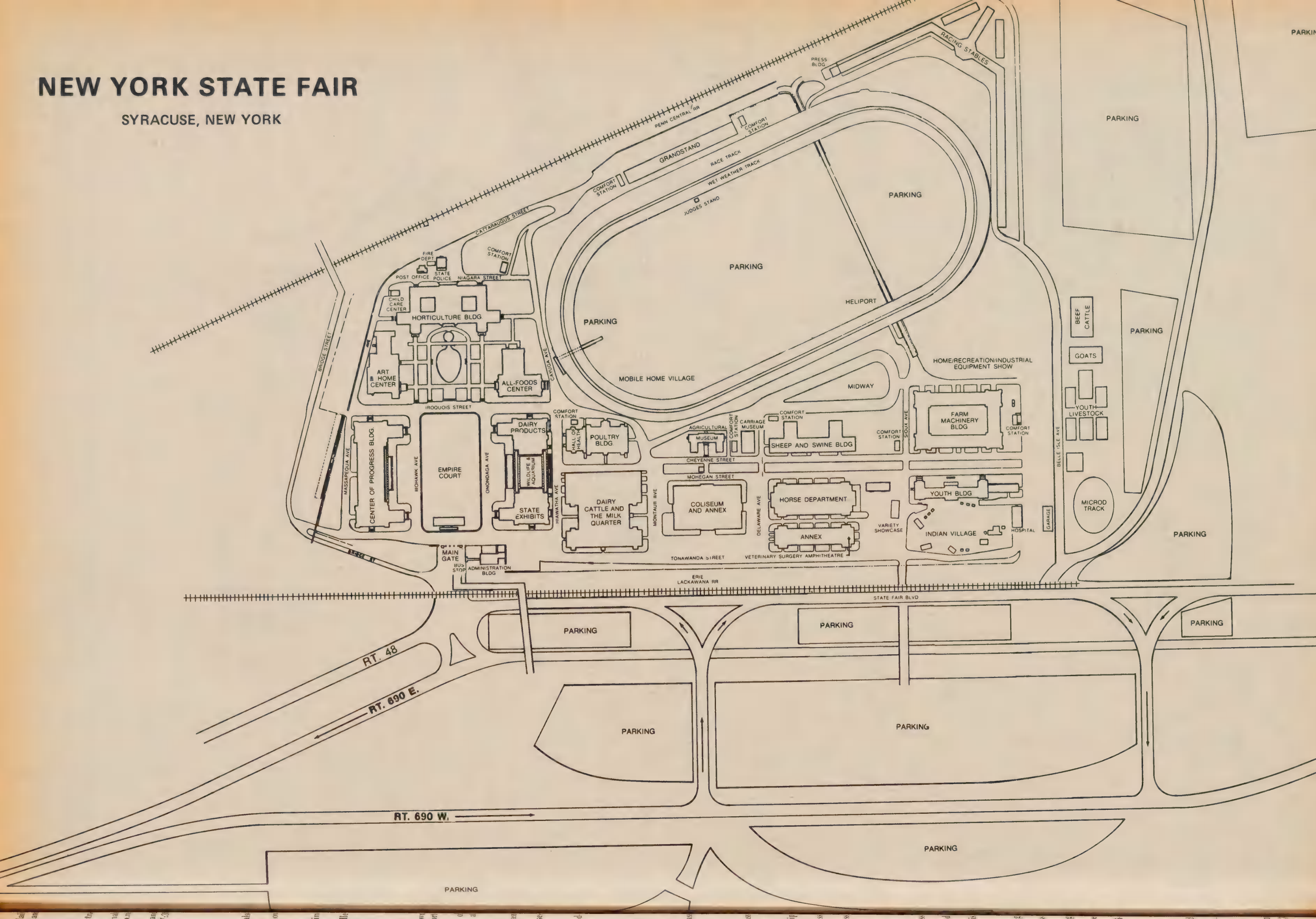
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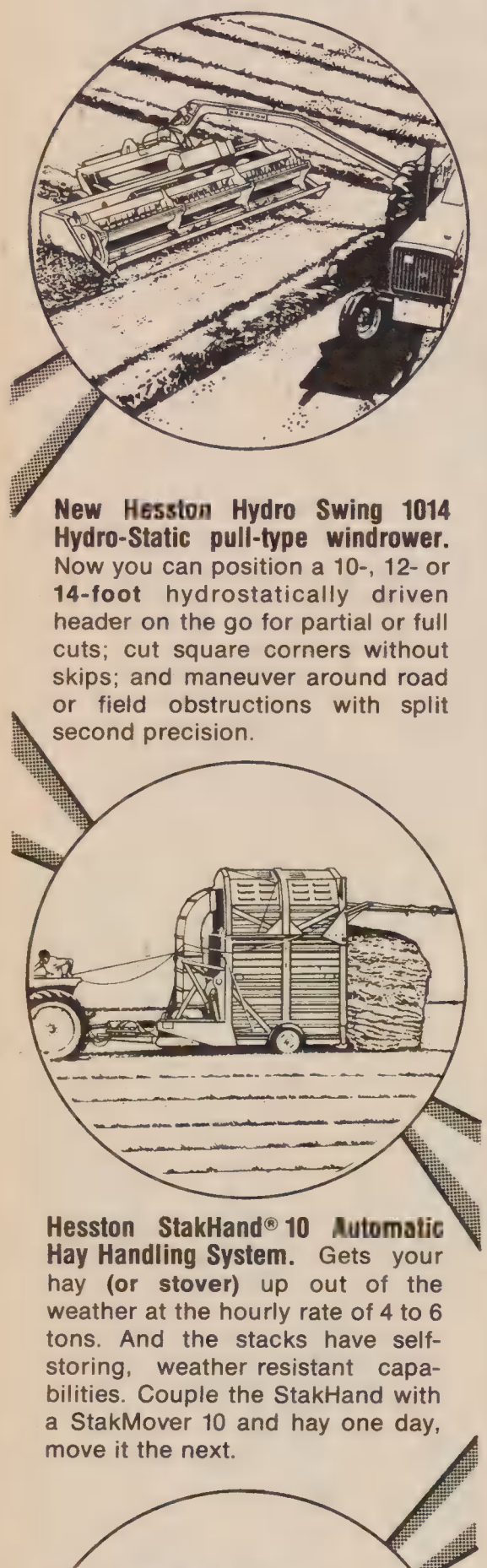
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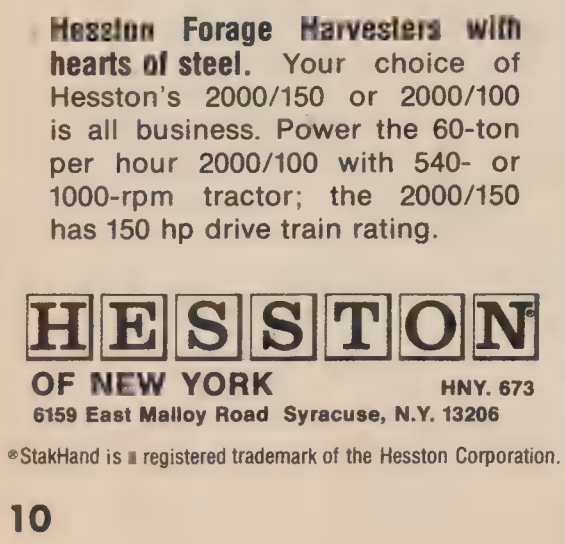


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New Hesston Hydro Swing 1014 Hydro-Static pull-type windrower. Now you can position a 10-, 12- or **14-foot** hydrostatically driven header on the go for partial or full cuts; cut square corners without skips; and maneuver around road or field obstructions with split second precision.

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The new 15,000-seat covered grandstand at the New York State Fairgrounds in Syracuse is scheduled for completion in time for the 1973 Superfair opening August 28. Above is an architect's drawing of the new structure.

(Continued from page 8)

Sheep Judging – Open Class Oxford, Shropshire
Entertainment – Charley Pride Show – also 7:30 p.m., and on Friday

1:30 Judging Open Class Holstein Bulls

3:00 Sheep Judging – Open Class Tunis

Friday, August 31

A.M.

8:00 Judging Open Class Holsteins Judging Shorthorn Open Breeding Classes

9:00 4-H Polo Tournament, First Round
Several FFA Contests

P.M.

12:00 Champion Beef Carcass and Quality Meat Auction
4-H Horse Show Begins

1:00 NYS Sire Races, Trotters and Pacers

6:30 Western Horse and Pony Showmanship Contests

Saturday, September 1

A.M.

8:00 4-H Horse Show continues

9:00 Empire State Tractor Pulling

P.M.

12:00 Entertainment – Stars from Lawrence Welk Show – also 7:30 p.m. and on Sunday – Myron Floren, Joe Feeney, Bobby Burgess and Cissy King, others

1:00 Motorcycle Races

7:00 Polo Tournament, Second Round

7:30 Senior Citizens Square Dance Contest

Sunday, September 2

A.M.

11:00 Judging Historic Auto Exhibit

P.M.

12:00 4-H Horse Judging Contest

12:30 4-H Horse Bowl Contest

3:00 State Fair Pauses Before God Antique Automobile Parade

7:00 4-H English Horse and Pony Fitting and Showmanship Contest

7:30 Demolition Derby

Monday, September 3

A.M.

8:00 4-H English Horse Show

P.M.

12:00 Entertainment – Country and Western Show – also 6:30 p.m. Lynn Anderson, Festus, the Hagers, Grandpa Jones

1:00 Stock Car Championship Races

2:30 Stars of Tomorrow Show (Talent Hunt Finals)

The Song of the Lazy Farmer

I think my reputation for avoiding ev'ry kind of chore just doesn't acc'rately reflect my real philosophy. In spite of what my critics state, it isn't work itself I hate; my peeve is that what most jobs need is handling with the utmost speed. Now, I don't mind the sweat and strain, and backaches with a lot of pain, that come from plain old-fashioned toil in tending stock or tilling soil; no matter how tired I might be, I am the first one to agree, the feeling of a job well done is satisfying and it's fun.

But I don't wear out happily if there's a stop watch held on me; if I can't take my own sweet time, there is no reason and no rhyme in sweating over anything, however big or challenging. I'll gladly tackle any task as long as no one tries to ask that I must do it speedily because unless I am prepared to be accused of shameful laziness. That is a lot of silliness, there's nothing that I can't get done at least as good as anyone if I can have two hours or three to do a one-hour job, by gee.



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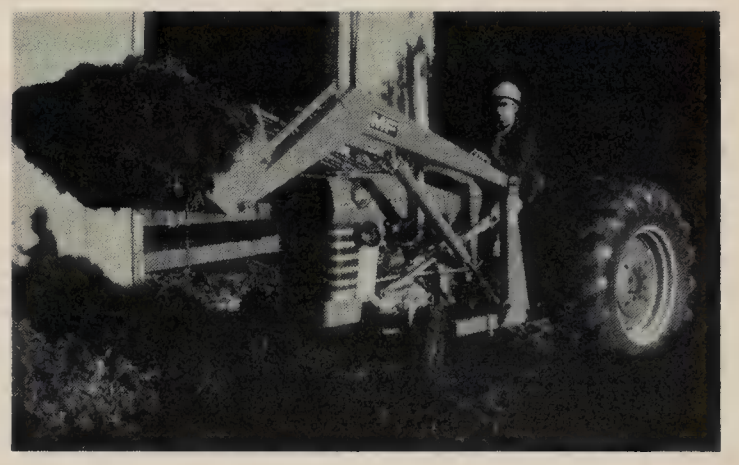
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ADDISON FAIR

The milk that many customers in the Northeast poured on their cereal this morning rolled out yesterday, in mammoth tank trucks, from Addison County, Vermont's "land of milk and honey."

Nearly 90 percent of Vermont's milk goes to consumers outside the state. In August of each year, the Addison County farmers who provide much of that milk combine their efforts to present natives and tourists alike with an "olde tyme country faire," known as the Addison County Farm and Home Field Days. Featuring not "girlie shows" but horse drawing, not "carny" types but entertainers from "Grand Ol' Opry," as well as a varied assortment of crafts, horse shows and cattle judging participated in by 4-H youngsters, this is the kind of rural fair that grandparents remember from their youth.

Located on a state highway easily accessible from major tourist routes, the Field Days site in New Haven is minutes away from every kind of family accommodation from first class hotels to public camping facilities . . . as well as major tourist attractions, including Middlebury College, the Morgan Horse Farm, the Shakesperian Festival, the Shelburne Museum, the DAR State Park and the Robert Frost Homestead in the Green Mountain National Forest. — *Mary Marsh, New Haven, Vermont.*

Editor's Note — The Field Days this year are on August 9-12.

SNOWMOBILE IDENTIFICATION

A suggestion for reducing the frequency of trespass and other illegal activity by snowmobiles:

Each snowmobile should have a special plate bearing the serial number of the vehicle attached **to the tread.** The plate should be made and attached in such a fashion as to print an identification number in the snow over which it travels.

If a property damage or trespass is noticed, the serial number could be recorded from the imprint in the snow surface, witnessed by a disinterested party, and reported to the police.

It's important that the violation should be against the **vehicle,** and that the vehicle be subject to impoundment until the fine is paid . . . much the same as a parking ticket. Otherwise, the owner could claim that some unknown person must have used his machine and was responsible.

This same principle would probably be applicable to motorcycles and ATV's. This would not only determine the guilty parties, it would also protect the innocent. — *Daniel Axtell, Canaseraga, New York.*



"We're sorry, we can't read . . . but we are willing to pay for any damage we did to the water."

DEFENDS GRANGE

In response to the letter written by a Sister in New Jersey on "The Grange Problem," we are wondering how long she has been a Granger. Surely not long enough to understand the basic principles upon which the Fraternity was built . . . Faith, Hope, Charity and Fidelity.

The Grange is a farm organization, founded to help the rural and urban people. It has accomplished much through better education, legislation and community service. For years it has strived for better schools, offered scholarships, sponsored youth meetings, and offered educational programs on better rural living.

Legislative matters start at the "grass roots," the Grange members. These issues are formed into resolutions which are passed by the Subordinate, Pomona, State and National Grange. Few people realize the far-reaching and thorough work of the National Grange in Washington for agriculture.

Sometime we might be surprised to find the federal government had stepped in and told us how many cows we could keep, also the quantity of meat we could sell with a stated price. It is only through the Grange and other farm organizations that the voice of the people can be heard.

In many areas, the Grange hall is a community center. It is a place where clean, wholesome recreation can be enjoyed. One of the bylaws in the Grange constitution is to ban all alcoholic drinks, also many of our halls have "no smoking" signs. It surely is a place where the old and the young can meet for work and for play.

As for the higher dues to pay a professional staff, they surely earn it. Without a doubt their salary never covers all the expenses. My husband and I were state deputies for six years, and never did we receive enough to pay our bills. However, we enjoyed the work and made many friends which we wouldn't exchange for any amount of money.

It may be an all-new ballgame, but think this over. The Grange has more to offer than ever before. We need the young people, and the young people need the Grange. — *Margaret Bice, Edmeston, New York.*

COON CURE

I have read your paper about people having trouble with coons in their sweet corn. We did until I put two strands of electric wire about it . . . one four inches above the ground, the other four inches above that. I used a light wire and a cheap fencer (current on all the time).

Probably one wire would do, but I never dared try it because our garden is next to a creek and woods that are loaded with coons.

Hope someone can get some benefit from this. — *Clifford Sheldon, Hartford, New York 12838.*

GRANGE VIEW

I suggest that one of the reasons why the rural segment of the economy has so little clout and presence today is that the Farm Bureau seems more interested in the insurance business, the NFO in holding back production, Agway in selling product and the Grange in doing whatever it was it did four decades ago.

Isn't the real problem implicit in the fact that the Grange, particularly in the Northeast, is no longer an agricultural power, merely a tradition? And a tradition that is honored by fewer and fewer farm families?

It strikes me that the Grange is losing, or has lost, a tremendous opportunity to serve this country as the spokes-organization for the rural and ex-urban resident, whether or not engaged in farming . . . for the small town and village resident as well. I do believe that there is a larger-than-recognized population segment that is, or could be, tuned in to the Grange precepts. But the Grange has never attempted to attract these people, and has never moved to meet the challenges of non-urban life in a modern world.

If the Grange would spend less time worrying about being, in total fact, an outdated agricultural organization and spend more time in considering how the Grange can capitalize on an entirely new and tremendous opportunity, something just might happen.

I subscribe fully to your view that a professional staff is needed, and professional thinking. But perhaps a restatement of objectives and definition of new goals that are meaningful today, not just a residue of yesteryear, is the real initial need. With this, funds just might be generated. — *A reader.*

MORE POWER

I read the comments about small dams with great interest, and would like to take the subject one step further. The need to relieve the present energy crisis is making the installation of small private turbine generators a very attractive alternative to the public utilities.

There is no reason to disbelieve the experts who predict power rates to double by the 1980's due to the escalation of crude oil prices by the supplying nations. Even if the U.S. were to begin immediately to convert oil-fired generators to coal (our most abundant fuel source), the demands could not be met for many years.

I submit that a huge amount of power now being consumed on farms could be manufactured on the farm. This would require proper engineering assistance and long-term, interest-paying financing.

The hardware involved (generator and controls) would run about $10,000 above the cost of the water-holding structure for the average farm. It would require a flow of about 900 cubic feet per minute . . . roughly a stream four feet wide by 20 inches deep, with an eight-foot head.

I would hope this would be a greater challenge than that of providing mere recreational areas and would help us all to help ourselves use our resources most efficiently.

As an afterthought, it occurs to me that the public utility companies would probably **welcome** the reduction in power loads from such projects and might even lend technical assistance to see them through!

Power to the people! — *Donald McKay, Fairfield, New York.*



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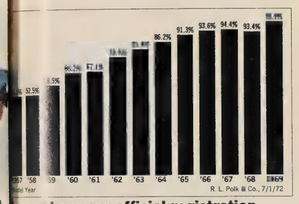
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by Charles Stratton

Sam Kofkoff shows the styrofoam cartons he uses to pack eggs.

Winning ways with poultry

SAM L. Kofkoff of Fitchville, Connecticut, an independent egg producer with a 200,000-bird flock, won the 1972 Ford Farming Efficiency Award for Poultry. Though honored as the nation's top poultryman . . . a recognition that came as a complete surprise . . . he modestly claims there are no secrets to his business other than "hard work, a liking for poultry, and a desire to make ideas work." Actually, razor-sharp thinking is no detriment, either!

Look at this poultryman's record: Geared for maximum efficiency, he averages 250 brown eggs per bird, 4.2 pounds of feed per dozen eggs, and 35,000-50,000 caged layers per man. He has 110,000 birds (Sexlinks) in three 500-foot, fully-automated, connecting cage houses, and another 90,000 in conventional floor houses. The cage system represents an investment of about $6 per bird including bird, cage and equipment. Floor birds represent a $4.50-per-bird investment.

Why the two systems? A combination of economics, changing times and good thinking. Kofkoff (pronounced Cuf-Koff) was brought up on a dairy farm but turned to broilers in the 1940's, raising batches of 55,000-85,000 birds for a total of 250,000-750,000 birds annually.

As Connecticut broilers phased out, he gradually switched to egg production. Located in the center of a highly-competitive industrial area with high wage scales, he found labor hard to get and started building the more efficient cage houses.

Independent

Kofkoff is an independent thinker. He looks at a problem from all angles, listens to opinions, then does what he thinks is best for his particular situation. As a result, he decided against the common practice of converting floor houses to caged layer installations. "I never have nor will I try it," he says. "I don't think it's practical for my purposes."

He applies the same philosophy to other facets of the business. What may work for someone else may not necessarily apply to his own situation. He had an unfortunate experience with rollaway nests. Successful for others, they didn't work out for him and he lost several thousand dollars on the venture. Another of his principles: "Do things right the first time, and avoid having to do them over again."

Unlike most poultrymen, Kofkoff hires his replacements custom-raised. Birds are laying when delivered to the farm at 20 weeks of age. They cost more in dollars and cents than if he raised his own, but he gets a better bird. Replacement rearing and supervision problems are eliminated, birds are debeaked, vaccinated and ready for 12 months of peak

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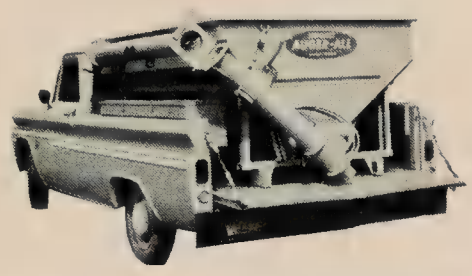
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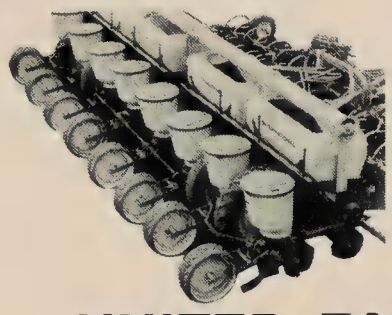
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production. He's free to concentrate entirely on egg production.

Laying flocks vary in age so he gets a continuous supply of eggs of all sizes to meet the needs of his many wholesale customers within a 100-mile radius. Caged layers are put into either Keenco or Big Dutchman stairstep cages, three birds to a 12×20-inch cage, six to a 24×20-inch cage. The outside foreman has charge of flocks and maintenance. The eggroom has its own foreman.

Kofkoff applies his sharp thinking to the feeding program. There's no set program for the entire farm; feed may vary between buildings. Each flock is treated individually and fed according to weight of bird, health and egg production. If he makes a quick decision to change feed, he calls the nearby feedmill and before he can finish his coffee, the new mix is delivered to the farm.

This poultryman's eggroom is as modern and intricate in mechanism as any factory. Here the eggs, brought directly from the caged birds by automatic collector belts, are candled, graded and sealed in Styrofoam cartons without once coming in contact with human hands. Eggs from the floor houses are brought to the eggroom in flats. All eggs are in cartons and refrigerated only a few hours after they're laid.

Seven employees work in the spacious (16,500 square feet), uncluttered room. "I can't stand clutter," Kofkoff says. "I've seen too many dusty, dark, smelly, crowded eggrooms. This affects quality."

Top Quality

Kofkoff claims his egg quality is second to none. "They're fresher, they're not from molting birds, and they're shipped promptly without holdover," he states. For example, he tells of an emergency phone call from a store owner who was running out of eggs. Kofkoff scheduled eggs not yet laid to be fully processed and cartoned by 1 p.m., delivered and on display in the store by 3 p.m. . . . and some of them may well have been eaten that same day, since the store remained open in the evening!

"This was strictly an emergency, though," he says. "That sort of thing is too hard on the help and too rushed for efficiency."

Fact is, one can't even buy a dozen eggs here . . . not even a relative or close neighbor. The eggroom is closed to outsiders. "I let my customers sell the eggs," says Kofkoff. He does like to have his customers visit the farm, and supervised groups are welcome by appointment.

Asked about floor birds versus caged layers, Kofkoff claims that floor birds do better if you have the labor. His flock records show that floor birds average 20 more eggs per bird than caged layers, and the shells are better. So far, he has stayed with brown egg birds, but would change to white egg production to fit consumer needs.

Discounting eggs? "It's a poor way to sell eggs," he says. "It could mean that a poultryman has to sell at a loss every time a customer decides to discount. The housewife has a tendency to buy only on specials, figuring eggs at the normal price are overpriced. Eggs should always be sold at a fair price based on quality and service."

About manure disposal: "The worst job on the farm," Kofkoff claims, "is cleaning a two-year accumulation of manure out of a 500-foot pit. And another problem is where to put it."

Some poultrymen with deep pits take out a little at a time, but Kofkoff cuts off the end of the pile and scrapes it clean to the walls and floor with a Payloader and dump trucks. At present, it's trucked to a nearby dairy farm, but he hopes manure drying for commercial purposes is the eventual answer. He nearly installed a plant last year, but decided against it. "The operating costs are so high you can't produce dried manure unless you have a paying market," he says. "It costs too much to just throw it on the ground."

Sam Kofkoff is decidedly happy at being chosen as America's top poultryman. He has his daily equipment and marketing problems, but he is determined to keep his table egg program efficient, to trim costs wherever possible without cutting quality, and to make a profit without resorting to price-cutting.

That's how he became the award-winning poultryman in the first place. He says, "Anybody can do the same if they really want to."

Garden Bulletin

The whos, whats, wheres, whens, and hows of home vegetable gardening are presented in a new USDA publication.

Such "how to's" as selecting a garden site, preparing the soil, choosing garden tools, selecting seed and planting the vegetables are covered.

Earliest and latest planting dates, as well as cultivating particulars, are included for vegetables that range from asparagus to watermelons. There is also a section on how to start plants indoors, including gardening and transplanting.

Single copies of Home and Garden Bulletin No. 202, "Growing Vegetables in the Home Garden," can be purchased for 70 cents from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402. Please use zip-codes.

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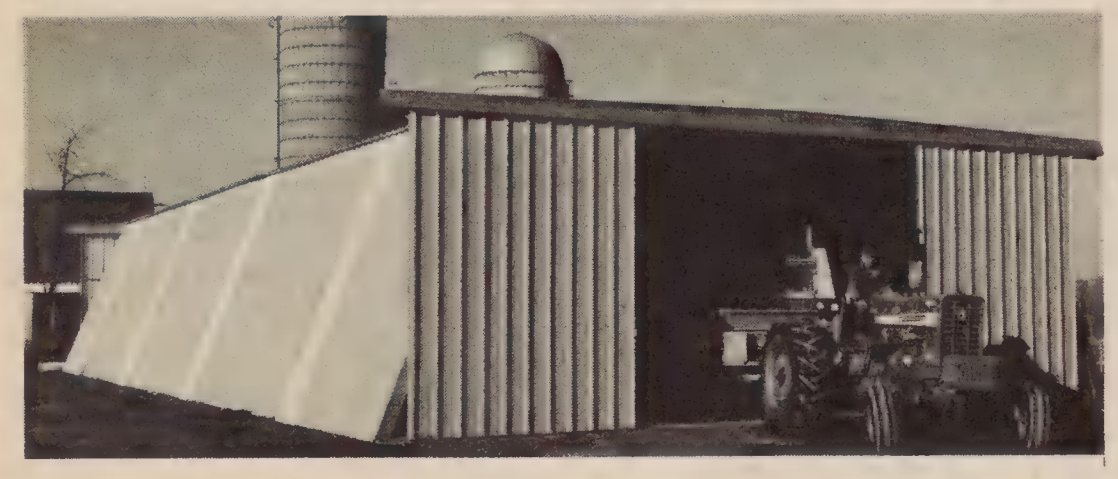
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Northeast FARM EXPERIENCE



FLOOR BIRDS ON WIRE

Not far from Norwich, New York, are the egg-producing facilities of Eg-Gro-Technology, Inc. Three men joined forces to set up the operation . . . George Arnold, Larry Deller, and Ray Dyment.

George Arnold is in charge of production, and has been well-satisfied with a new high-rise, sloping-wire poultry house which was originally developed by Professor Glen Bressler at Penn State University. Eg-Gro-Tech's house measures 75×410 feet, and holds 55,000 birds in two pens, each measuring 30×400 feet.

Walkway

The pens are separated by a walkway, along each side of which move two egg belts carrying eggs toward a receiving room. The lower egg tray receives eggs rolling off the sloped wire floor (normally between two and four percent of production) . . . the first belt up handles eggs from the row of roll-away nests nearest the floor . . . the top belt totes eggs from the next tier of nests located farther up the wall. Nests are molded plastic with a carpet bottom and a fake egg held in place at the bottom. There is one nest per 15 birds.

In the parlance of the trade, these are **floor** birds, as contrasted to **caged** layers. Each pen is 30×400 feet, floored by wire (1×2-inch mesh) that slopes in two directions from a center crown. Degree of floor slope is 1.5 feet to 12 feet. A 2×4 mesh at the top of the pens prevents birds from flying into the walkway, or between pens.

George comments, "The birds in one pen were raised in cages . . . we get eight percent floor-eggs there. The other group was raised as floor birds, and they lay only four percent of their eggs on the floor."

Economical

He continues, "We have a **total** cost in the building and its equipment of only $2.35 per bird . . . considerably less that would be the case with cages. I see economy as one of the major advantages of this type of poultry housing, but it also offers the flexibility of being able to switch to producing hatching eggs, or embryonated eggs for laboratories, without major modification. Besides, we figure only 1.5 man-equivalent to keep it operating, plus casing the eggs from the Page packer." These cases move on to a complete egg-grading and packing setup at the farm.

A manure pit under the wire floors measures nine feet from earth to the bottom of floor joists. The pit is presently cleaned once a year, but it would easily hold an accumulation from several years. There are 32 fans in the pit, moving air to dry the manure.

Air Movement

These fans combined move 3 cubic feet per minute (cfm per bird, and are arranged in four rows. The fans in any one row (located at intervals 50 feet apart) all point in one direction, but the direction alternates each row so two rows point toward one end of the building, two blow toward the other end.

Capacities of the ventilation system also include 1 cfm per bird of air forced **into** the building by eight 30-inch tube-fan jets (four on each end of the building), 3 cfm exhausted **from** it with conventional poultry-house ventilation. An early problem with this design was cold air along the walls, discouraging hens from using nests located there . . . but it was cleared up by going to perforated plastic tubes (Acme system) for dispersing intake air. The system is regulated by thermostatically-controlled louvers at the intakes so in-house or outside air . . . or a blend of both . . . can be circulated. Exhaust fans located in pit walls are also louvered to correlate exhaust and intake air volumes.

Special Fan

"We're using a four-blade fan in the pit," George reports. "It has a tunnel effect so air moves to the next fan, rather than dispersing widely." Eventually, he'd like a mechanically-powered rake in the pit that would help stir droppings for even more rapid, odor-free drying. This would lend itself to packaging manure for possible garden-store sale.

Dropping odors are not offensive,



Birds at Eg-Gro-Technology farm surround George Arnold on sloping wire floors. Note perforated air tube at upper left.

but aerobic bacteria create ammonia at times. "Although we figure that it takes 50 parts per million (noticeable to people) of ammonia to be detrimental to the birds, we try not to let the ammonia level get above 20 ppm," George comments. A simple color-test kit provides information on that level; when it's too high, formaldehyde chips are placed in the pit to neutralize the ammonia.

Problem

An unexpected problem developed in loading the house with birds. "We thought it would be simple to load 'em all in one end," George comments. "But they would not move those 400 feet to the other end. We finally went around to the side and loaded birds into the center of the building, and found they would move both ways toward the ends."

Eg-Gro-Tech also has 80,000 caged birds in nearby buildings (each 50×100) put up some years before. In addition, the company has 75,000 birds at its facility near Conesus, New York. Feed comes from the Montgomery-Bucks Cooperative south of the border in the neighboring Keystone State. — *G.L.C.*

MINERAL IMBALANCE

Karl Kroeck (rhymes with neck) and his family operate a 60-cow dairy farm near Knoxville (Tioga County), Pennsylvania. They came five years ago from Lancaster County to the hill country of the Keystone State's Northern Tier.

Now they have 518 acres of their own to farm, plus doing considerable custom work for other farmers in the area. As if this weren't enough to keep busy, Karl is active in the Pennsylvania Farmers Association at state and national levels . . . and also recently entered the race in local politics!

"Back in Lancaster County," Karl recalls, "I was doing some farming on rented land . . . and also moonlighting as a foreman at a boat factory. The pay was good, but when the grass gets green in the spring, I've just got to be out there turning furrows!"

Sealed

The Kroecks have brought two sealed storages since coming to this farm . . . a 2050 and a 2030. The larger one holds haylage, the smaller high-moisture shelled corn. A roller mill "squashes" the HMSC as it comes out of the silo. Two concrete-stave silos (a 12×50, and a 12×60) hold corn silage.

The cows are housed in stanchions, some in comfort stalls. Their basic feeding schedule goes like this:

—In the morning, each cow gets in the barn 30 pounds of haylage, topped off with dry grain (12-13 percent protein).

—At about 2:30 p.m., the herd is let out to an outdoor feed bunk, where each averages to eat 30 pounds of corn silage. Karl says, "I think cows eat more silage from a bunk than from a manger . . . something about competition stimulating consumption."

—They're "teased" back into the barn with HMSC and dry grain. On the average, each cow gets 12 pounds of HMSC and 12 pounds of dry grain (corn, oats, sometimes distiller's grains) per day.

—In the evening, dry hay is fed at the rate of 8-10 pounds per cow.

"We don't feed **any** silage to dry cows," Karl comments, "and so far we've never had a displaced abomasum. Their only roughage is dry hay."

Karl has done considerable studying on dairy-cow nutrition. Part of the spur for such study was the development of a bad case of dysentery in the herd.

"Between considerable forage testing by Penn State . . . consultation with several animal-nutrition experts . . . and reading a number of technical publications . . . I've concluded that we ran into a shortage of **copper**, probably associated with an excess of molybdenum triggered by the copper deficiency.

"Apparently, the younger we cut alfalfa, the more non-protein nitrogen . . . similar to urea . . . that we get in it. The more mature roughage gets, the less likely it is to have mineral imbalances . . . but most farmers try to cut early for best total protein and digestibility levels. Levels of sunshine duration in any given year will make a marked difference in plant metabolism, and consequently in mineral balance and levels of non-protein nitrogen present.

"Anyway, I finally put enough copper sulfate in the feed to get 10-15 parts per million of copper." Response was immediate, and the dysentery cleared up. — *G.L.C.*



Karl Kroeck and daughter Julie beside their brimming-full bulk tank.

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See Satoh plow.



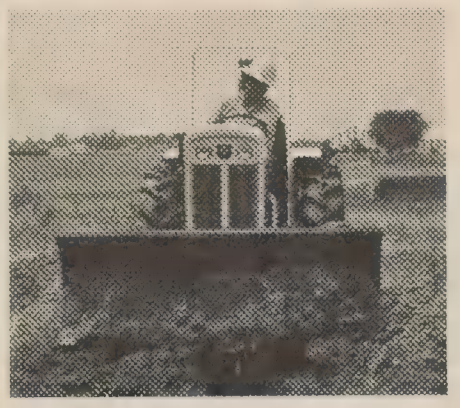
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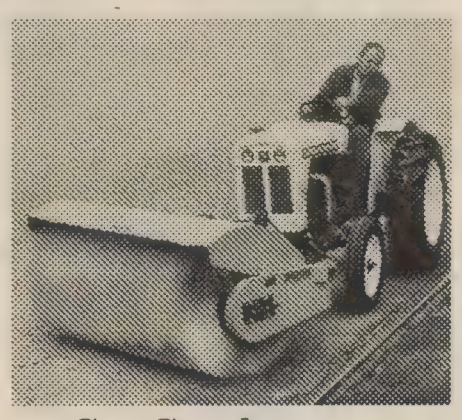
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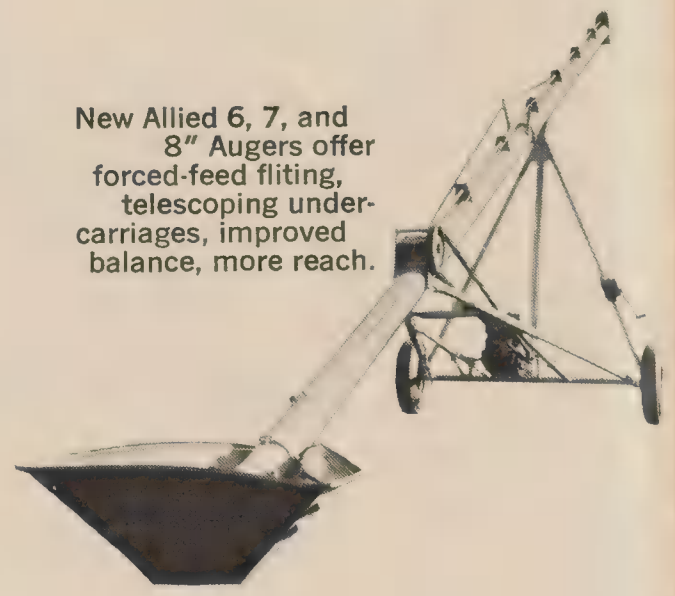
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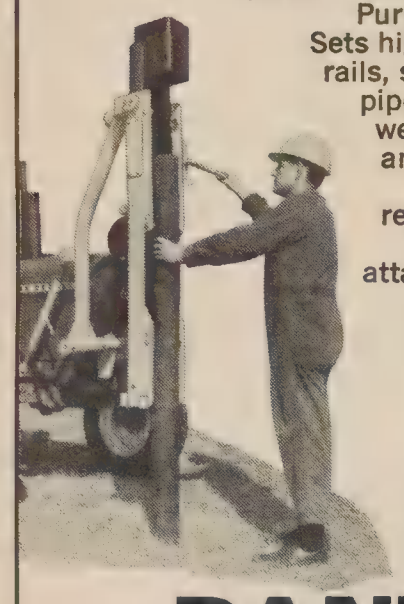
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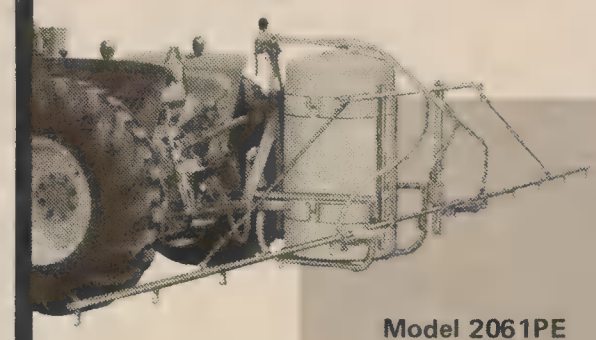
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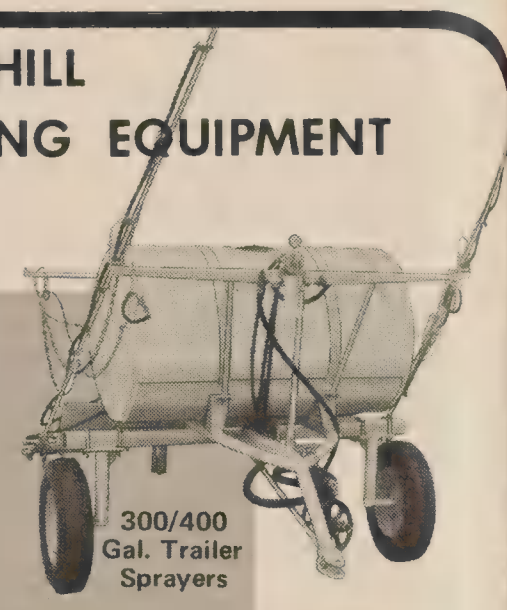
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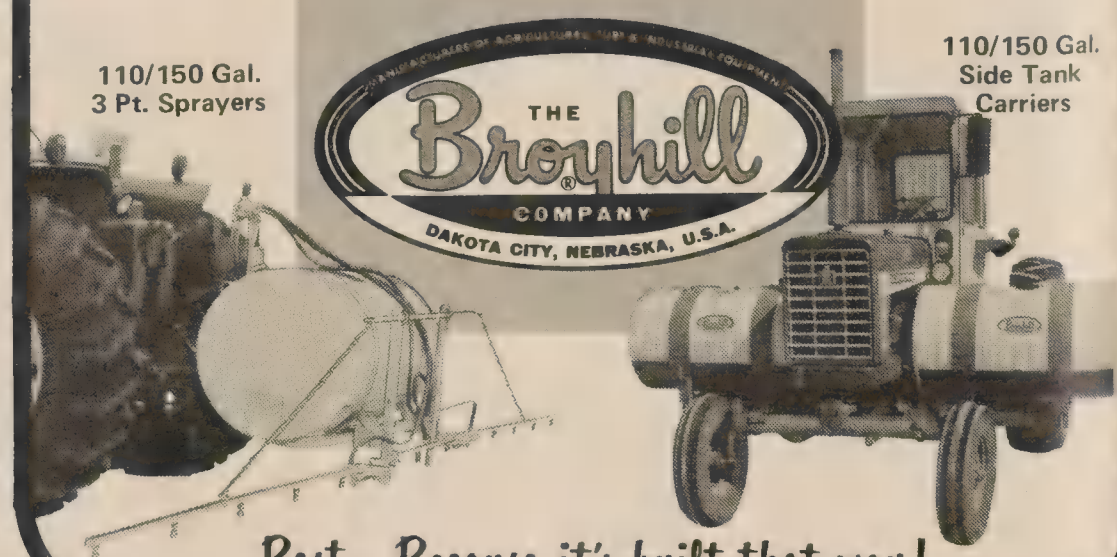
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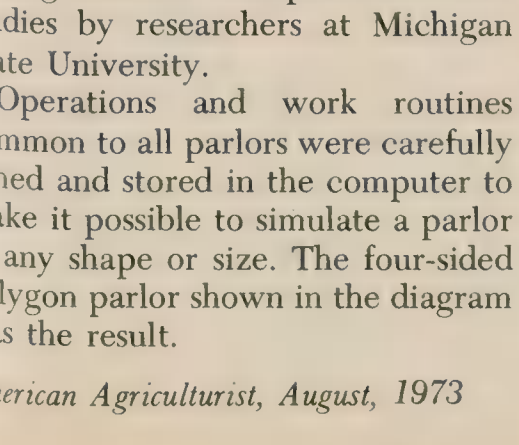
Buildings similar to those erected on farms for machinery storage are serving more sophisticated uses. This is the recently-completed Wilmington Township Building in Lawrence County, Pennsylvania. Offices and meeting room occupy 2,400 square feet; the rest is equipment storage. It's a Shenango Steel building.



Better Building – Upgrading the quality of frame-type construction is the purpose of the recently-formed National Frame Builders Association headed by president Ned Tudi of Agway, Inc., Syracuse, New York. Members are farm building contractors working to develop uniform construction codes and more realistic building standards. NFBA standards have already been accepted by several state building authorities.

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The group also hopes to establish safe-load requirements for farm buildings based on geographic location and end use . . . as well as to secure more favorable insurance rates for farmers on wood frame construction.



4-side, 6-stall (24-cow) Polygon Milking Parlor.

Parlor Readout – A super-efficient concept in milking parlor design is the polygon parlor conceived after a long series of computerized time studies by researchers at Michigan State University.

Operations and work routines common to all parlors were carefully timed and stored in the computer to make it possible to simulate a parlor of any shape or size. The four-sided polygon parlor shown in the diagram was the result.

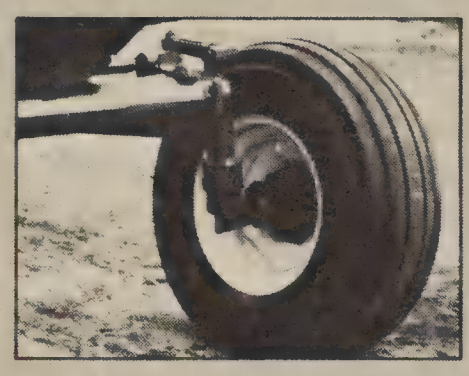
The polygon parlor combines some of the advantages of the herringbone and the side-opening type. Distance between udders is minimized, walking distance is reduced, even some semblance of individual cow handling is obtained.

Studies indicated that a fully-automated four-sided polygon parlor with four, five or six stalls per side allows one man to milk as many as 100, 110 or 115 cows, respectively. In a comparably-equipped double-eight herringbone, the milking rate has been predicted at about 75 cows per hour.

A computer-designed milking parlor? Don't knock it. The first one is already in use, and it should be of interest to dairymen to follow the development of this concept.

American Agriculturist, August, 1973

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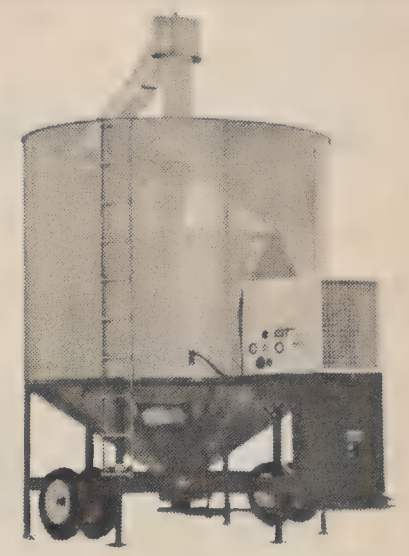
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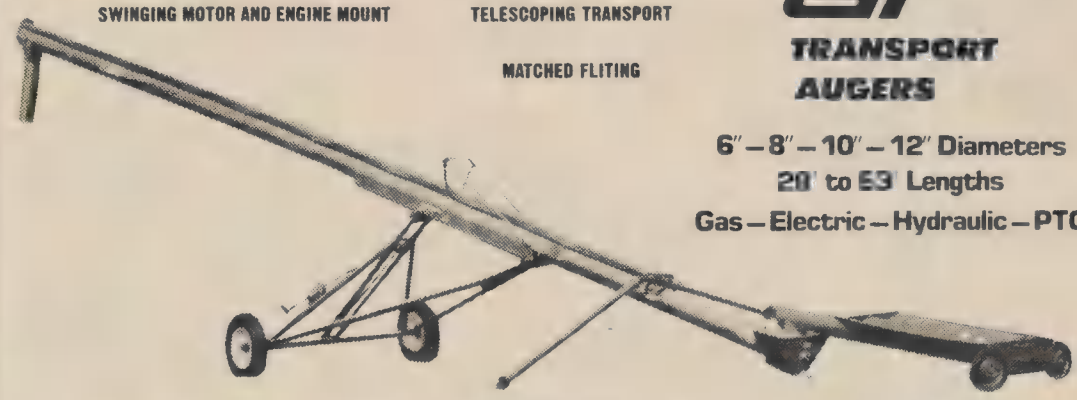
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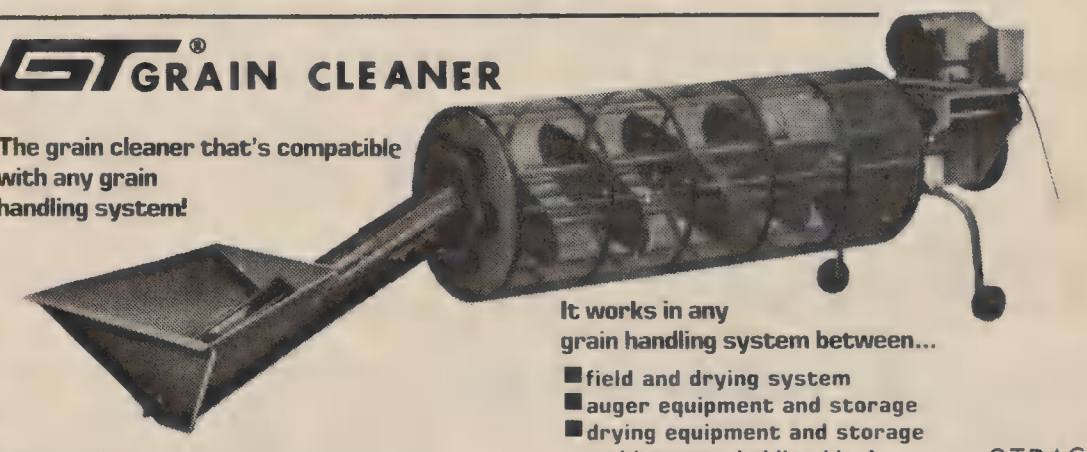


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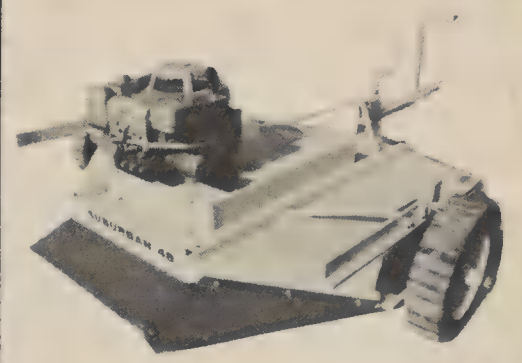
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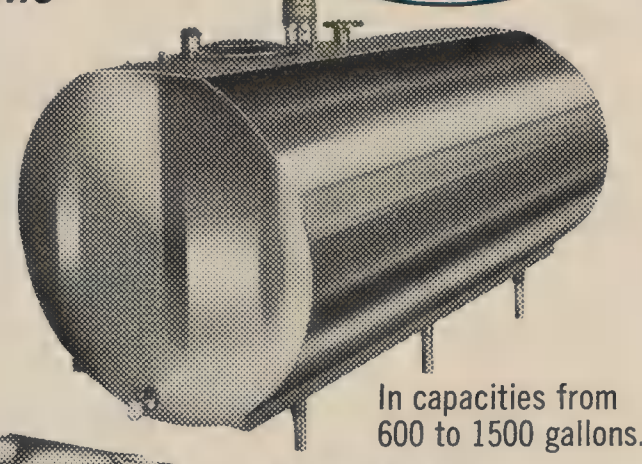
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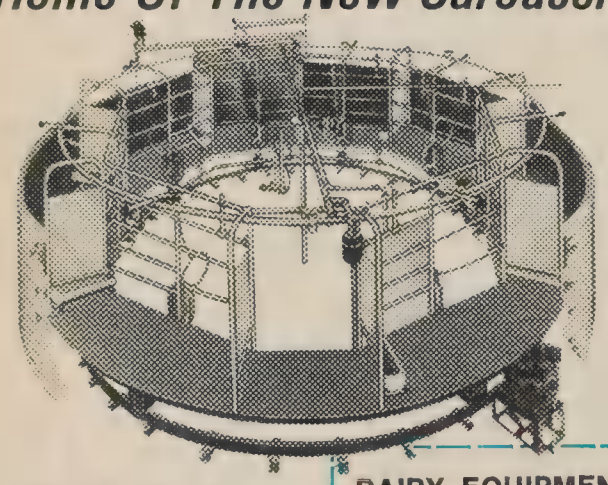
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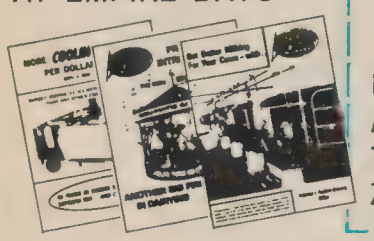
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Everett (right) and Donald Jones amidst cattle in the roofed section of one of the outdoor feeding pens. Self-feeder for whole shelled corn is in background.

Dairy beef

Everett Jones and son Donald operate a 255-acre farm near Geneva, New York, and rent another 90 acres (300 acres total tillable). Most of this acreage is planted to corn each year to provide feed for growing and finishing dairy beef animals.

Holstein bull calves are purchased at auction markets and put into a starting barn measuring 55×45 feet. It's a metal-skinned structure with STYROFOAM insulation (1½ inches in ceiling, 1 inch in sidewalls). "I'd go another half-inch thicker in both if I were doing it again," Don comments.

There are three exhaust fans on the east side of the building, and another one to be installed in the south side. Slot intakes around the perimeter walls allow entry of fresh air. Pen arrangement is flexible, but the building is intended to start as many as 140 calves . . . 70 on a side.

Pallets

The floors of starting pens are formed with wood pallets 4 inches thick. The openings between wood pieces forming the upper side of the pallet measure ¾ inch. Straw (from home-grown oats and rye) is used as bedding. The pens are cleaned between batches of calves . . . the process requires a week to remove and wash pallets, clean the barn, disinfect, and dry the pallets out before putting them back.

When calves first arrive, they're introduced by hand to the "Maternal Robot" machine, which has two nursing nipples dispensing warm milk replacer. Navels are treated to prevent infection, and each calf gets a multiple vitamin shot (A,D, and E) . . . and vitamins are added to the "milk" in the nursing machine for the first four weeks. For the first three days, each receives a daily sulfa drench, and the calves get some form of nitrofuran for the first two days.

"If a calf looks droopy, or has a temperature, we also use injections of an antibiotic," Don comments. He continues, "The last batch, we hand-feed grain twice a day . . . this means we get a really close look at them often, and they get on grain feeding earlier than if we didn't hand feed."

It's no secret that health problems are the bugaboo . . . actual or potential . . . of every farmer growing calves for dairy beef. "Our mortality levels are tolerable, but not as low as we'd like," Don reports.

Calves are castrated by elastic band when leaving the starting barn at six to eight weeks of age. They then go to the first of three pens, open to the air (but roofed), where they will be fed out to market weight of 1,000 pounds (at 10.5 to 13 months of age). As they mature and gain in weight, they are periodically shifted by group into the second and finally the third pen. Bedding used here is sawdust.

The section of the building outside the starting barn measures 111 ×55 feet . . . and steers have an additional fenced feedlot area outside the roofed area. The self-feeders that contain whole corn are in the unroofed (but paved) area. The concrete floor in both roofed and unroofed areas is 6 inches thick. "That 200 yards of concrete is the best investment we ever made," Everett remarks.

Steers are sold primarily to a nearby meat packer . . . and payment is made for the pounds hanging on the hooks, not live weight. Dairy beef is gaining a reputation in the meat industry for having high "cutability" as well as flavor . . . and a butcher is always interested in how many pounds of salable meat he puts in the showcase from each animal.

Why the surge of interest in dairy beef? Two major reasons . . . most northeastern farmers find it more profitable over the years to market home-grown grain through livestock (as milk, meat, or eggs) than as cash grain, and the Northeast has an abundance of dairy calves available as potential feeders. Dairy beef is no magic carpet on the path to riches . . . as Everett and Donald can attest . . . but it offers opportunity for profit to skillful livestock men. — *G.L.C.*

LIVESTOCK



More Bull – Whatever action the government takes regarding synthetic hormones used in cattle feeding to speed growth, one hormone has escaped federal regulation. The natural hormone in bulls has a powerful influence in promoting growth. The advantage of this natural hormone has been largely overlooked, but as a way of increasing the feeding performance of beef, it should be the most unquestioned procedure available.

Revised standards for young "bullock" beef are now in effect, and the number of bulls on feed should begin to increase . . . especially now that the growth-stimulating hormone called DES has been booted out of the feedlot by federal regulatory authority.

Film – "Parasites in Horses," a full-color film describing the prevention and treatment of equine parasites, is available from the Upjohn Company.

Riding clubs, FFA chapters, 4-H clubs and other groups may borrow the 25-minute, 16mm film by writing the Upjohn Company, Department PIH, 9818-190-1, Kalamazoo, Michigan 49001, six weeks in advance of the desired viewing date.

Tel-O-Auction – Auction selling by telephone has secured more buyers and better prices for lamb producers in North Carolina, Virginia and West Virginia. Members of the Eastern Lamb Producers Cooperative started the new method, called Tel-O-Auction, when the number of buyers at local auctions in the three-state area dwindled to one major bidder.

Market lambs are graded at the farm by USDA graders. At weekly auction time, buyers are told on the phone how many lambs the cooperative has in each grade that day. Then in a conference telephone call, the auction starts, with each buyer able to hear the other bids.

After the sale, buyers designate a delivery date, and the farmers whose lambs have been purchased are notified. Lambs are assembled at the nearest auction market, regraded to make sure they meet the grade at which they were sold, and loaded for overnight trucking to the packer-buyer.

In 1972, there were 12 buyers in three major markets, and lamb prices were 40 to 95 cents per hundredweight higher than for lambs sold outside Tel-O-Auction . . . even after paying 70 cents a lamb for grading and other overhead costs.

Research Results – Penn State researchers report that high-moisture grains treated with organic acids (acetic and/or proprionic) are superior to dried corn for feeding beef cattle or sheep . . . and equal to high-moisture corn without acid treatment.

They also report a high level of interest among livestock producers in the new stackers and balers that make very large accumulations of hay to be left in the field until used. Preventing unreasonable wastage by animals feeding from the stacks or bales is an important consideration. Finally, they report that a well-planned crossbreeding program can increase net profit to beef cattlemen by 20 percent as compared to programs using the same breeds in straightbred herds. To be successful for the long haul, breeders must continue to select outstanding bulls in the breeds they use.

Tested Bull – Twenty-one bulls with records developed in the New York Performance Test sold recently for an average of $798 each. Fastest-gaining bull was a three-quarter Simmental consigned by Ryancrest Farm of LaGrangeville, New York (3.39 pounds average daily gain).

Anyone interested in the Performance Test should contact: Dick Hamilton, Emmadine Farm, Poughquag, New York 12570.

Sheep Films – Several films about sheep and wool are available from American Sheep Producers Council, Department Co, 200 Clayton Street, Denver, Colorado 80206.

TVP time – The hassle over meat prices offered a golden opportunity for manufacturers of **textured vegetable protein** (TVP) to push their wares. TVP extenders are approved by the federal government for use in the nation's school lunch program . . . institutions, restaurants, and fast-food operations are also using the product. Only recently, retail stores have begun pushing TVP products.

Extender is usually a dehydrated soy product. With water added, it's mixed with ground beef at a ratio of generally 75-80 percent beef, 20-25 percent extender.

Law forbids the combination to be sold as hamburger, but it is being marketed as "Tasty Burger," "Juicy Burger," "Superburger," and many more. These products sell for about 20 cents less per pound than all-beef hamburger.

It all goes back to the economic fact of life that an acre of land yields nearly 10 times more vegetable protein than animal protein.

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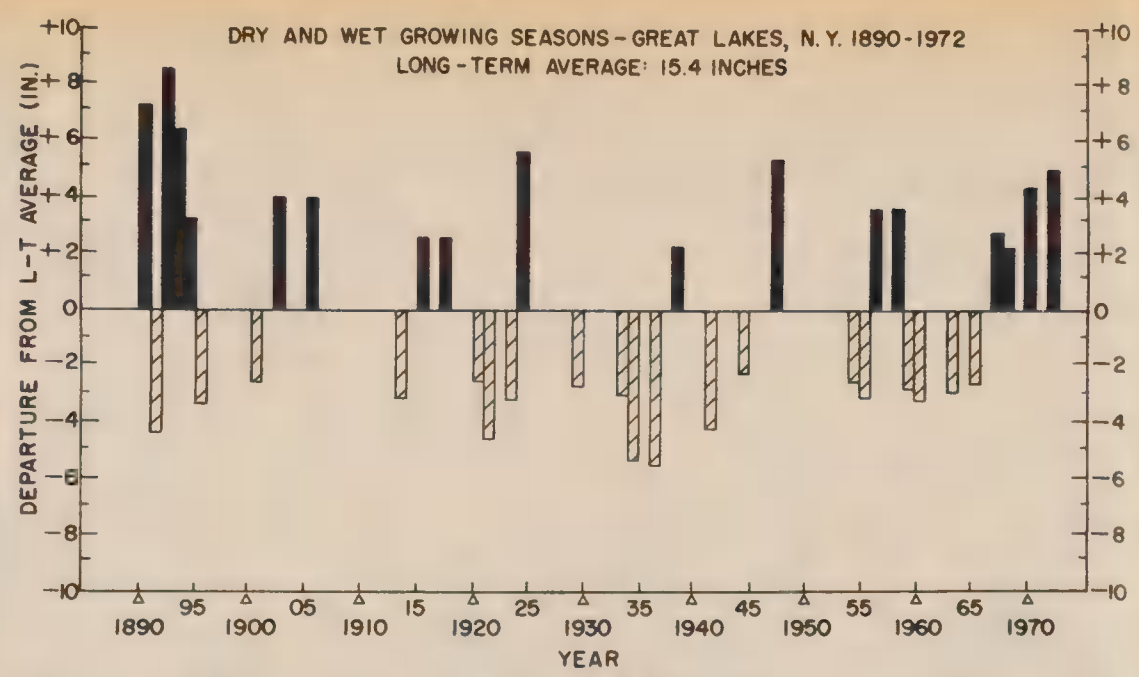


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Note that deviations from normal precipitation have occurred for many years, and that there have been several "dryspells" and "wetspells.

Is our weather changing?

by Earl Ainsworth

ABOUT the only thing more talked-about than politics lately is the weather. Rumors of Noah's return, descending ice sheets, or atmospheric sabotage invariably crop up during a run of bad weather, and it's easy to see why. What we need is some concrete reassurance now and again that what we've experienced the past couple of years in the Northeast is just plain bad luck rather than a shift in the climate or the result of some sinister doings.

Past

A look back about ninety years answers a question maybe some of us were afraid to ask. Farmers for the last century or so have had their share of "wetspells" and "dryspells." That wet spring granddad muttered about in 1890 tallied just as many inches of rainfall as the one we muttered about last year when Agnes passed through.

Fact is that our weather has always been cantankerous in one way or another at one time or another. But the norm between the fluctuations is not changing; the northeastern climate today is the same as it was way back when.

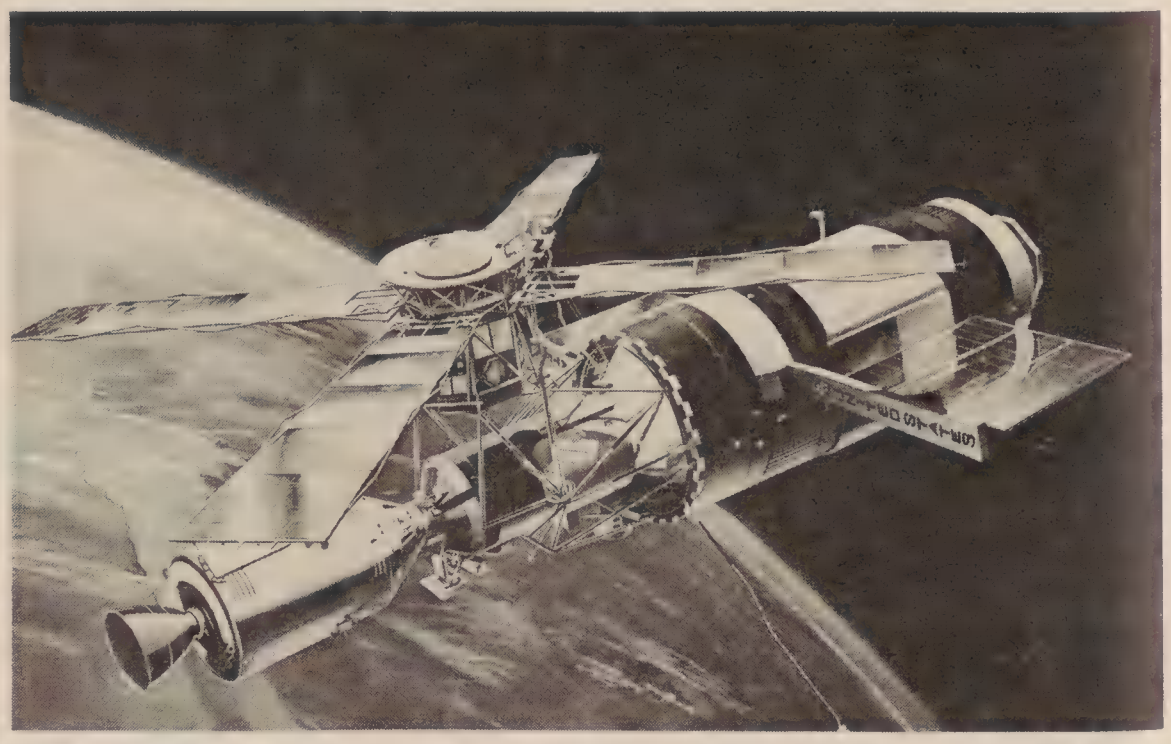
Professor Boyd Pack, long-time state climatologist (and now a member of Cornell's agronomy department), prepared the accompanying long-range chart. Barring any unforeseen catastrophes, we can reasonably expect to see something like this for the next hundred years as well.

"Eight or ten years ago," Boyd is quick to point out, "folks were getting excited about our climate changing to something like that of Arizona." What many fail to realize is that extremes in weather occur according to probabilities.

Boyd tells us that for May in Tompkins County, New York, for example, in three years out of ten farmers can expect more than 4.1 inches of rain and in another three years out of ten farmers should expect less than 2.5 inches of rainfall. That leaves four years out of ten for something in between 4.1 inches and 2.5 inches. The catch is that nothing prevents those three years of either extreme from occurring back to back, nor does anything prevent the "more than 4.1 inches rainfall" from being considerably more . . . say over eight, or vice versa.

Some care should be taken when examining charts like this one be-

(Continued on next page)



Peering down at earth from an altitude of 235 nautical miles, Skylab I is gathering information that will help scientists in their studies of crops and forests, mineral and water resources, fisheries studies, and air and water pollution. In three manned missions over an eight-month period, this celestial Peeping Tom will aim its photographic telescopes at the earth, sun and stars, hoping to ferret out data that man can use in solving his problems of the environment, diminishing resources and population growth.

cause they are extremely regional and carry only a general message. Your region will behave differently from the one depicted and so the values will be different, but the same laws of probability and deviation from the norm prevail. Boyd adds, "The same general pattern that we see in New York State occurs in Pennsylvania, New Jersey and New England with the possible exception of Maine."

Future

Perhaps the natural thing to ask at this point is, "What's in store for the next few years?" To that question Boyd frankly states, "We just don't know." Just because two wet years occur back to back, it doesn't mean we can justify high expectations about the next year. Raise our hopes, yes, but knowing the ways of the weather in days gone by, we should be prepared for anything.

There is comfort in knowing the probability is better for something near the normal. With that in mind, and a grain of salt for the grisly rumors of ruin, perhaps we can better understand our weather and look forward to better days.

VEGETABLES



Onion Futures — Futures trading apparently has little effect on supply and demand in the onion market. A study by the USDA's Economic Research Service considered two time periods: the 1946/47-1958/59 crop years when onion futures contracts were actively traded on the Chicago Mercantile Exchange, and the 1959/60-1969/70 crop years when there was no futures trading in onions following a ban by Congress in 1958. The ERS study indicated no significant difference in the structure of supply and demand between the two periods.

Growers are apparently more influenced by past prices in determining their onion plantings, while current prices reflect current production levels. Large crops bring in low farm prices, causing growers to reduce plantings the following year. Resulting reductions in production bring about strong prices, and up goes acreage again.

A copy of "Structure of Seasonal Supply and Demand in the Onion Market," MRR 985, is available free by sending a postcard (please include zip code) to: Office of Information, U.S. Department of Agriculture, Washington, D.C. 20250.

Nematodes — A virus discovered by plant pathologists at Louisiana State University may hold the key to nematode control. The virus causes the nematodes to clump together in the soil (a condition known as swarming), and results in a breakdown of nematode wall tissue and eventual death. If made to work, the virus could reduce the need for chemical control of these microscopic worms which attack plant roots and do millions of dollars worth of damage to agricultural production each year.

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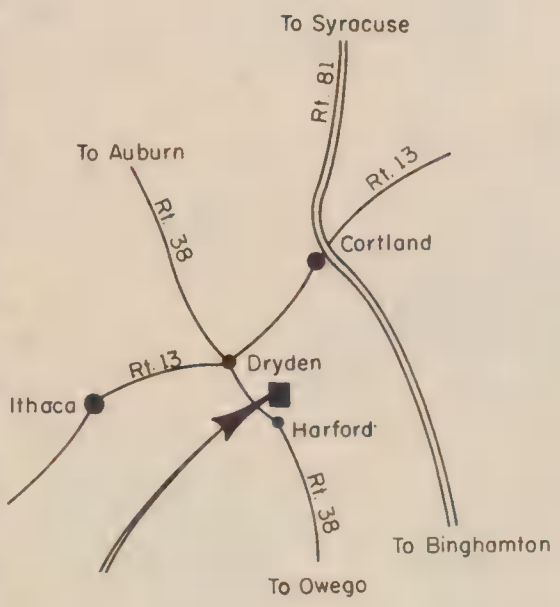
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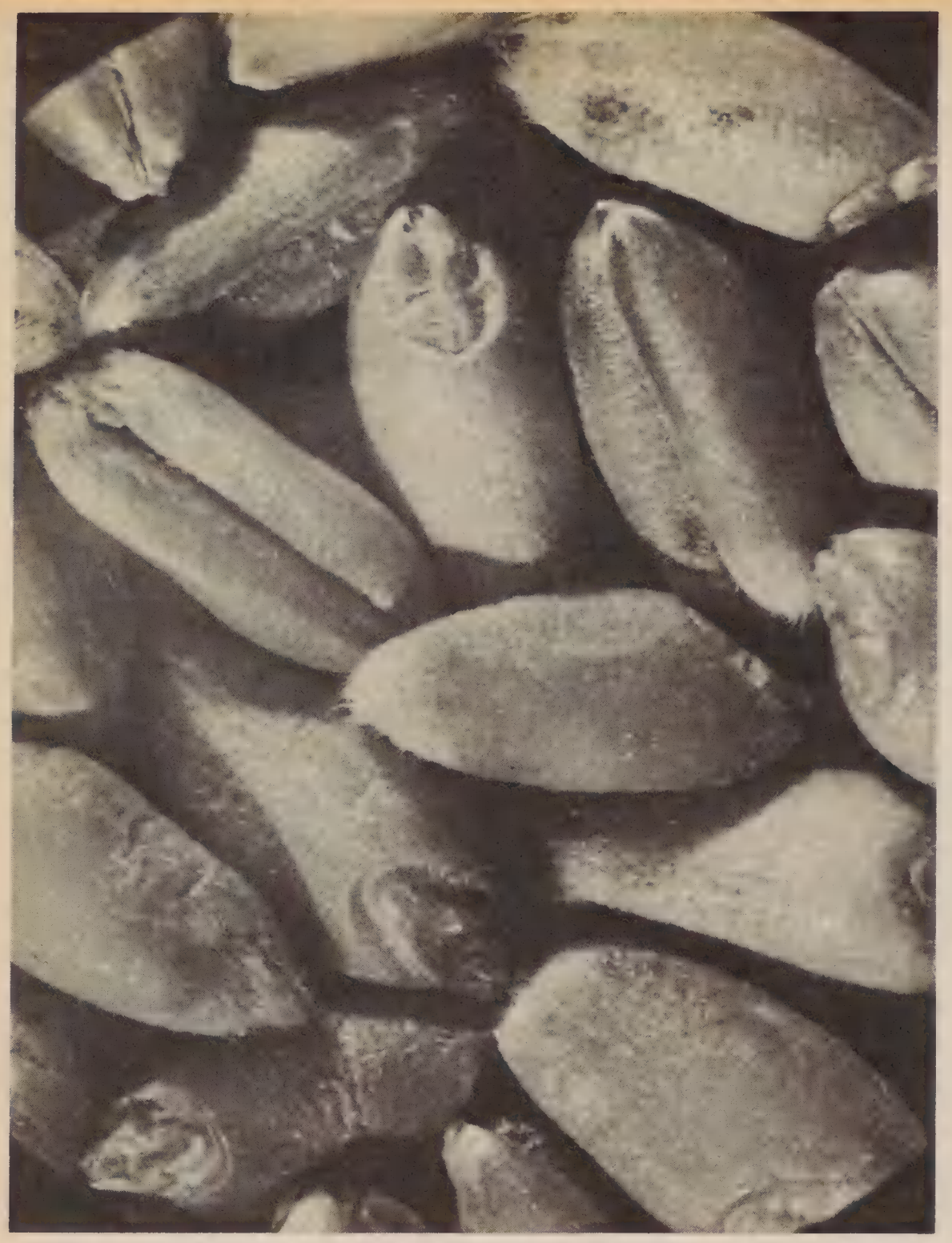
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What's with wheat?

by Bill Pardee

SUDDENLY wheat is a glamour crop, with demand up sharply and prices running nearly double those of a year or two ago. Interest is strong in increasing wheat acreage this fall, both for cash grain for sale and as a home-grown feed to relieve skyrocketing feed bills. Winter wheat is an attractive crop for these purposes in the Northeast, offering good yield potential with low labor and production costs. Spring wheat has never had sufficient yield in the Northeast.

Perhaps you've grown wheat and are considering expanding your acreage. Or maybe you're considering planting wheat for the first time. Either way, or if you're just curious about wheat, we've pulled together the following questions and answers to help you.

What yields are possible?

This depends on where you farm and how good a job you do. Forty bushels per acre are average, with good growers consistently in the 50 to 60-bushel yield range. In addition, you should get around a ton of straw per acre.

What growing costs can I expect?

Cost account records of select farms in New York show that total out-of-pocket costs for growing, harvesting and handling the crop average from $50-$60 per acre. But costs can vary widely from this average, depending on your acreage, your efficiency in use of machinery and your general management skill.

Included in these costs are charges for about four hours worth of labor per acre involved in land preparation, planting, harvesting and miscellaneous operations. Here's one place efficiency can cut costs.

What equipment is required?

You should have available, through ownership or hire, in addition to normal tillage equipment, a grain drill, a combine and a crop sprayer. In many areas, custom operators are available for one or more of these jobs, and can often do it cheaper than you can yourself, particularly on a small acreage.

How about artificial drying of the crop after harvest?

This won't be needed every year, but it's sure nice to have access to drying facilities in rainy harvest seasons. It can help you get the crop in ahead of sprouting and other quality losses. If you're planning to grow lots of wheat for a number of years, a dryer can pay, particularly if you can also use it on corn, oats or other crops.

What varieties are best for cash grain? For feed?

This year, the best wheats for milling and for feed are the same. This may change in the future as plant breeders eye the possibility of extra high-yielding feed wheats, but developments are several years off.

In New York, where the market requires soft white wheats, Yorkstar is the favorite and the highest yielder. Arrow, new from Dr. Neal Jensen's breeding program at Cornell, also looks outstanding. Its straw strength is the best we've seen on any eastern wheat, and it has better test weight than Yorkstar.

In yield, it compares with Yorkstar, though it may sometimes be a bushel or two lower where lodging isn't a factor. Seed supplies are available for fall planting. If you're interested in a real good standing wheat, give Arrow a try.

For the soft red wheat market in Pennsylvania, Dr. Bob Pfeiffer, Penn State cereal breeder, strongly recommends Arthur 71. This variety features top yield potential and the best disease resistance available. It's also the only variety now on the market with resistance to race B of Hessian fly. This new race of fly has now joined us in the Northeast, attacking older varieties of wheat that formerly were resistant to this pest.

Blueboy, a hot-shot newcomer a couple of years ago, has run into test weight problems, yield problems, milling quality problems and maybe more. Blueboy may yield well for feed, but growers producing grain for milling purposes should shift to Arthur 71 or Redcoat.

Weather and Disease

Many Pennsylvania wheat fields looked poor all spring, and never did yield well. Leaves had light-colored mottling and plants were stunted. Was this just poor weather or disease?

Weather surely was poor, but a newly-discovered disease was widespread in Pennsylvania (and was also seen in New York and Ontario). Called "spindle streak mosaic," this was caused by a virus that lives in the soil, and is probably spread by insects. It shows up as a light-colored mottling of the leaves. Severely hit plants are dwarfed and produce few, if any, heads. Warm weather generally clears up leaf symptoms, but this year this came late and the Pennsylvania crop was hurt badly.

Dr. Pfeiffer found all present Pennsylvania and New York varieties susceptible, but did pinpoint several promising breeding lines that were resistant. He'll be examining these closely as potentials for variety release.

Fly

How about Hessian fly? Should I worry about it in planning my fall planting date?

Hessian fly damage was serious in Pennsylvania in 1973, but not particularly so in New York. We've seen increased damage in the Keystone State from the new race B that joined us about four years ago, attacking Redcoat, which was resistant to the older strain.

In Pennsylvania, plant Arthur 71, to gain resistance to this new strain. In New York, Hessian fly damage has not been serious in recent years. Most New York farmers plant wheat after the females are through laying eggs and so avoid the problem. This end-of-egg-laying or so-called "fly-free" date varies and gets earlier as you go North or up in elevation. It ranges from mid-to late-September in New York wheat areas. Your county extension agent can provide you with specific dates for your region.

What soils are best for wheat?

Wheat does well over a wide range of soils, so long as they are moderately well-drained or better. Wheat does not do well on poorly-drained soils.

What are the lime and fertility needs of wheat?

Wheat does best at a soil pH of 6.4 or above, says Dr. Shaw Reid, Cornell soil fertility specialist.

For phosphorus or potassium, Reid suggests 20-40 pounds of each, drilled in at planting time. He notes that these rates have given the most profitable yield responses in New York tests. Penn State recommendations run somewhat higher for the soils of southern and central Pennsylvania.

Some nitrogen, say 10-20 pounds, should go on with your drill, to get the crop off to a good start. This should be followed up with spring topdressing, just about the time wheat begins vigorous growth. Best rates vary depending on how much nitrogen is already in your soil, as indicated by how much lodging you normally get. Cornell trials show best yields with 20 pounds per acre or less on fields where wheat normally lodges, 30-40 pounds on average fields, and up to 60-75 pounds of actual nitrogen on fields where wheat rarely or never lodges.

How about seed treatment?

Seed treatment is important to protect wheat seedlings from diseases carried in the seed or coming from the soil. If you buy treated seed you're all set. Otherwise, you should treat yourself. Present chemicals aren't as effective as several now outlawed, but they're still well worth applying.

There are many trade names on the market, all containing one or more of several basic fungicides that have been well tested and duly cleared for use. They will be listed on the label, along with the trade name. Look for one or more of the following: captan, maneb, thiram, or Terrazole, for seed decay organisms and seedling blights. In addition, two other compounds, HCB and PCNB hit covered smut, and are frequently sold mixed with one or more of those above.

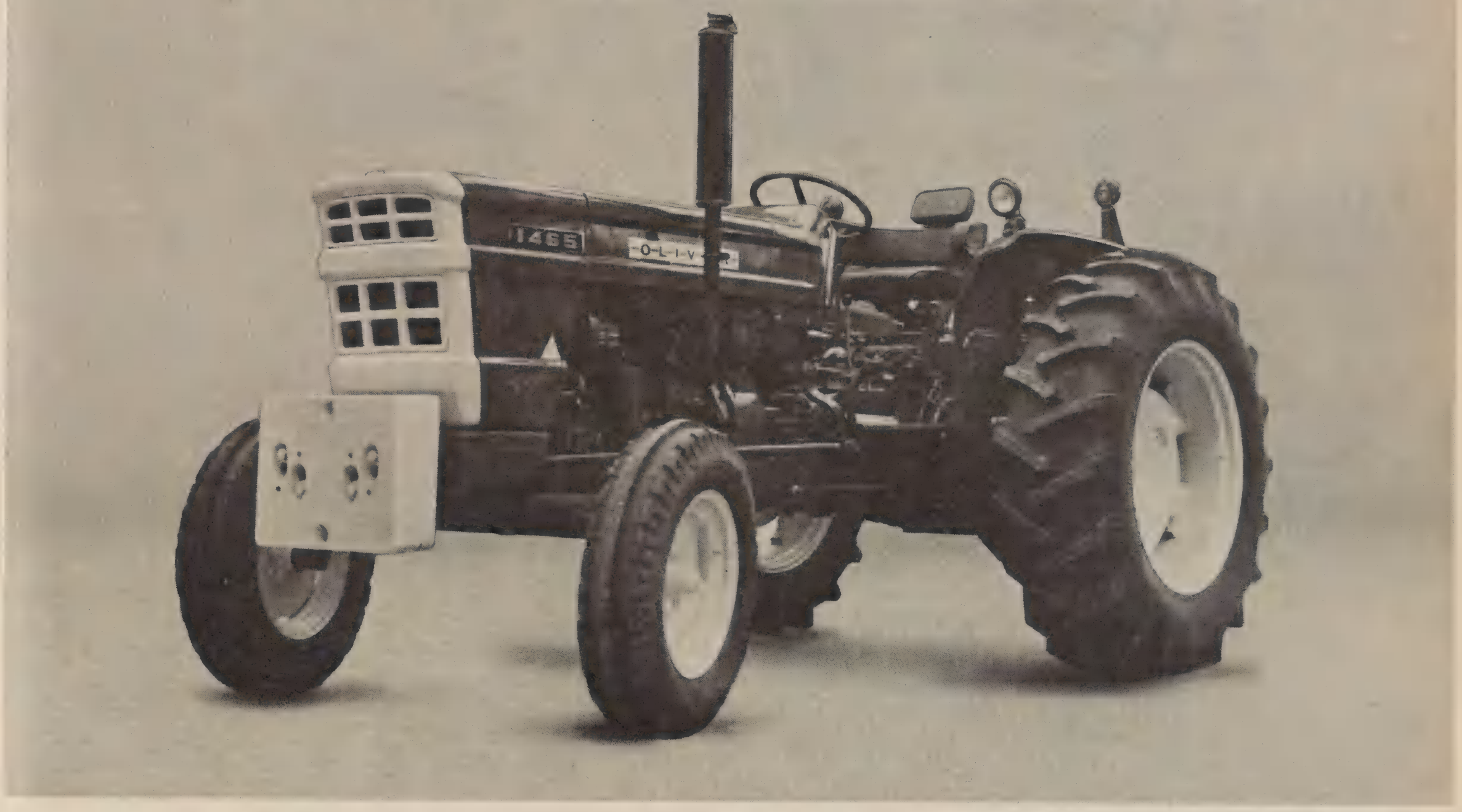
Is certified seed worth its extra price?

In survey after survey across the country, certified seed has proven a profitable buy. It provides assurance that the seed meets high standards for genetic purity and germination and that it is free from noxious weeds and other undesirable contaminants.

Certified seed normally comes treated, with a tag to guarantee its quality. I've been looking at seed most of my professional career, and have been fooled by "good, bright seed" enough times that I check lab tests as reported on the tag in any seed I plant.

(Continued on page 36)

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Richard McGuire

Perspective on food prices

by Richard McGuire*

IN our view, the current level of food prices is the result of inflation, excess of demand over supply, increased government regulation and intervention in agriculture, and the mass migration of young men from the farming industry.

Although it is true that the price of food is higher than at any time in recent memory, it would be even higher if not for the productive efficiency of agriculture. In the last twenty years, output per man hour for the nation's agricultural industry has increased 3.3 times while output per man hour in U.S. manufacturing has increased only 1.7 times in that period. This presents a frustrating dilemma for the American farmer because the general public has failed to recognize how the vast differential in wage trends between agriculture and other industry affects the current situation.

There is nothing wrong with a high wage. But because increasing wages in other industry has not been matched with increased productivity, a lot of U.S. industry has priced itself off the world market.

The examples are many, but one that comes readily to my mind is that of the electronics industry. The fact is that electronic products . . . everything from radios to digital clocks . . . can no longer compete with those produced abroad. This isn't because of inferior quality of our products, but because of our inferior high prices.

And the main component of that high price is our increasing cost of labor which has not been matched by increased output per man hour. By no means should this situation be limited to the electronics industry; many other areas of manufacturing are getting caught up with the same problem. There is increasing evidence that this is becoming true also in the automotive industry.

*President of New York State Farm Bureau, and a dairy farmer, Cambridge, New York.

Opposite

Exactly the opposite has occurred in agriculture. Because the farmer has multiplied his output per man hour while his wages have not increased significantly, food produced in America is one of the most attractive buys on the foreign market. And with the abundance of American dollars in other countries, placed there by our hands through spending for defense and the increasing purchases of oil and industrial goods, our friends abroad are willing to pay more for our food products than American consumers have historically had to pay.

This could lead the farmer to feel that for the first time in twenty years he has the opportunity to make a decent income. At least the demand for American food abroad might suggest some opportunity for an increase in the farmer's wage to narrow the gap between income and his increased per-man-hour productive capacity.

But the consumers here at home seem to be saying that they want no part of it. And just as potential profits motivate expansion of production, any appreciable drop in farm prices or any discouragement over the potential of increased income, surely lessen the incentive for farmers and ranchers to increase production.

Rollback

A leader of a major labor union recently called for a rollback in food prices and controls on the price of raw agricultural products at the farm gate. Of the $111.1 billion spent for food in 1971 (the latest year of available statistics) the farm value amounted to $35.8 billion, while marketing costs accounted for $75.3 billion . . . and labor costs were more than half of that marketing bill. At the same time, he suggested the need for an increase in wages for his industrial workers.

In effect, he was calling for lower wages in the food industry, and that would affect 13 million people. If farmers are faced with the prospects

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of not being able to receive an income that will meet costs and return a reasonable profit, which currently is 15 percent less than their city cousins, they face few alternatives. Some will stop producing and others will look for markets where the potential income exists. And as outlined earlier, those will be foreign markets.

It is time for everyone to recognize that we can't have high wages and low prices no matter what the commodity. High wages drive up the cost of all raw materials. In the case of the farmer, the land gives us nothing without the farmer's toil and investment of resources. And all of those resources are costing more. If it cost a farmer $1,000 a month to operate his business in the recent period of 1967 through 1970, it now costs him $1,340 for the same items.

Our problem is also complicated by the massive migration of young people from farming. And in light of the investment needed for a farming operation today, coupled with the prospect of a lesser income than in other careers, who can blame the young person for not remaining on the farm?

Inflation

Perhaps more than anything else, food prices and the plight of the farmer have been affected by inflation. Wages and price levels are the results, not causes, of inflation. Excessive government spending and deficit budgets are the cause of inflation.

When government spends more money than it takes from taxpayers, it generally borrows a part of the deficit from commercial banks. This increases the supply of money and credit to chase after available goods, and prices go up. For example, in the seven-year period from 1965 to 1972, government spending increased at an average rate of $16.2 billion per year, the money supply grew at the rate of $11.3 billion per year, and disposable personal revenue is up 8.6 percent.

Let's take a look at what has happened to meat prices from the standpoint of consumers and farmers. Meat prices have gone up because demand has outpaced supplies. This is in spite of the fact that cattlemen have boosted beef production 2½ times in the past 20 years and have increased the supply of choice beef 4 times in that period.

It is a simple fact that when people are employed at relatively good wages, they increase their meat purchases. Three million more people are at work than a year earlier and average monthly wages are up $40. In addition, public assistance benefits have increased by $2.7 billion, bringing additional demand for food, especially for meat.

Adjustment

It might take some adjustment, but consumers are faced with considerable adjustment in their thinking about food prices. In the last 8 years, take-home pay to the consumer has risen 62 percent. Food prices have risen 39 percent.

The consumer should also understand that political actions have, little by little, been increasing the cost of food. Increased regulations and restrictions on labor, the use of chemicals, sanitary requirements, and labeling are but a few areas where well-meaning legislative action, requested by consumers, has added to production costs. Someone must pay for them.

There has been a lot of discussion over the recent meat boycott, and many views on both sides have been expressed. It is our belief the consumer meat boycotts will have only a temporary effect on price levels because they do not recognize the root cause of the high cost of living . . . and I'll emphasize it again . . . government-fed inflation.

Boycotts disrupt the regular production and marketing operations and work against an orderly increase in supplies . . . and the threat of future boycotts could discourage producers from increasing production, especially hog and poultry producers faced with current high feed costs.

Boycotts distort the market picture by restricting the normal function of the law of supply and demand. If the energy devoted to boycotts were applied to the major cause of rising prices of all consumer items . . . excessive government spending and deficit financing . . . there would be some real long-time benefits for farmers, workers, businessmen and consumers.

There has been some question about the alleged withholding of livestock by farmers. Refraining from selling until the erratic gyrations of the marketplace (prompted by boycotts) are stabilized, makes sense. However, undue delay only increases our problems, tends to decrease the value of our products, and will increase the number of cattle and hogs to be marketed in the future. This will have an adverse impact on prices received by producers at that time. Farm Bureau believes in the competitive market system, in which supply and demand as expressed by the user are the ultimate determinants of market price.

This is why we remain opposed to government price controls on raw agricultural products. Experience shows that such controls would lead to shortages, rationing and black markets. Furthermore, wage and price controls treat the symptoms, rather than the basic cause of inflation.

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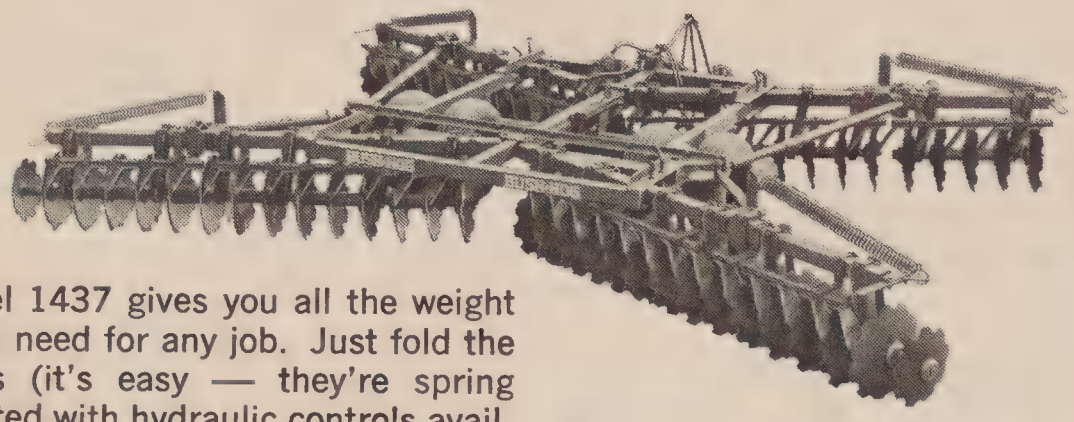
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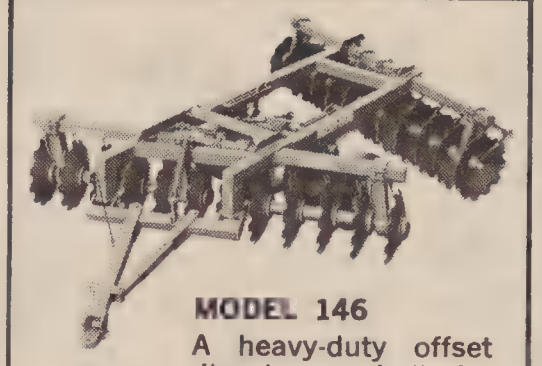
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Using a tractor-mounted grapple to load bales onto a dump truck.

Hay-handling... the one-man way

by Charles Stratton

DAIRYMAN Everett Stevens of Fairview Farm, Weathersfield Bow, Vermont, bales some 1,000 acres of hay annually. It takes him 90 seconds to turn out a king-sized round bale . . . half- to three-quarter ton, on the average.

His baler cost around $4,500, which is about $1,000 more than a fully-equipped conventional baler with all the extra paraphernalia, but he looks at it this way. The job is a one-man, fully-mechanized operation with no manual labor involved. No baler twine is required. He has a better chance to beat the weather. The self-feeding bales present no storage problem. And he has no fear that a would-be thief will throw any of the hefty bales into the back of a pickup and drive off!

The Hard Way

Over the years, Stevens has worn out and made up from parts many types of hay rigs and balers. "But something was always missing," he comments, "and haying required a lot of work and brute strength." When he saw an ad for a new type of roll baler, he figured it was what he wanted and placed an order. After a year's wait, his new Hawk Bilt Model 480 Roll Baler arrived in 1972. Of the first 400 made, only two were delivered in the East.

This baler is equipped with a moving raddle chain, like an endless rake, which picks up the windrowed hay and rolls it into a compact circular bale, like rolling up a carpet. When the tractor operator judges the bale is the right size, he pulls a release cord to open the rear gate and allow the raddle to freewheel and kick out the bale as the machine moves forward to start another bale. The raddle chain is driven by a hydraulic motor powered by a pto-mounted pump.

When haying, Stevens works a day ahead with two 9-foot mowers, following with two windrow rakes. Even then, the baler (towed by a John Deere 4020 diesel) catches up. In fact, baling is so easy he claims there's a tendency to bale a little green.

He notes slightly more hay loss in the field than with conventional methods, but considers it negligible in comparison with the work saved. He makes sure the bales are at least five or six feet apart to allow for air movement. The top half-inch turns brown from weathering, but almost no spoilage occurs, either on top or on the ground.

Once the bale rolls out of the

(Continued on next page)

With Our ADVERTISERS

At Empire Farm Days



Vicon's Acrobat hay rake can also be used to ted, turn swaths and fluff hay. No tools . . . and about one minute . . . are required to change from one operation to the other. See Vicon's exhibit at the Tudor and Jones display.



The Stanford Seed Company will exhibit demonstration plots of award-winning Northrup-King hybrid corn varieties. Included will be PX 446, the Superstar first-place winner in the Maine State Yield Contest. At Empire Farm Days, Stanford Seed will staff its booth with corn specialists who will discuss the methods and N-K varieties used by state champions in the Northeast.

baler, Stevens' haying problems are over. The huge bales are simply left in the field until needed for feeding, which might be fall, winter, or the next spring. He may turn young stock into the field to self-feed on the bales during winter. Excess hay in the feedlot can be protected with an electric fence.

Last winter, he placed 50 bales in a field with 100 head and except for daily checkup from the road in a pickup, the herd received no attention from the first snowfall at the end of November until February 1. He does supplement heavy hay feeding with liquid protein.

Loading

When bales have to be moved, his tractor-mounted grapple (once used with a stacker baler) lifts individual bales onto a truck in one minute, and dumps them off where needed for self-feeding. Generally, he loads two trucks at a time. If the field is wet and soggy, he loops a 20-foot cable around the bale and hauls it to solid ground with the pickup.

In the feedlot, bales are rolled or pushed into position with a scraper blade or the back of the pickup. Electric fencing can be used as a self-feeder, but Stevens warns of the chance of fire.

This dairyman with a Brown Swiss herd uses a reassembled barn moved in to replace one that burned in 1942, combining it with loose housing for more than 100 milkers. "It does the work and doesn't cost as much as a freestall system," he comments.

Pastured

Milkers are still pastured. Young stock of all ages are pastured year-round in just about every convenient pasture for miles around. He rents a lot of the area hay and pastureland from landowners who like to see their fields taken care of and put to good use.

Stevens raises summer calves, sells winter calves. Calves stay with their mothers for six weeks, then are transferred to nearby old farm buildings having an open shed. Calves are allowed to clean up one hay bale at a time within a fenced area. Older heifers are self-fed in the field.

Part owner of this 1,300-acre farm (mostly woodland) is Everett's brother, Karl, who works elsewhere. The work crew on the farm consists of two full-time men . . . Leon Baker, who was hired to work for six weeks 20 years ago and is still there, and Floyd Buck, a ten-year employee. Stevens also hires two schoolboys as part-time help.

After a year of satisfied use, Stevens has only one complaint about his roll baler . . . there isn't enough waste hay for bedding. But then, as he says, you can't have everything!



Everett Stevens pulls a handful of hay from the center of one of his huge rolled bales to check quality.

QUIETER SNOWMOBILES

Snowmobiles are getting quieter . . . a move that will be welcomed by anyone who has been awakened by the sound of the snarling machines in the wee hours of the night. New York and Massachusetts are imposing a 73-decibel limit on any snowmobile manufactured or sold there by 1974. Minnesota authorities also recently established a regulation limiting noise levels to 73 decibels, but the matter is still being hotly contested there by snowmobile manufacturers.

Industry spokesmen point out that sound measurement in decibels involves a logarithmic function, not a linear scale. Thus, lowering the sound levels from 82 decibels to 73 involves a reduction of **65 percent.** For every six decibels the sound pressure is lowered, the sound is cut in **half.**

In any case, the snowmobiles of the future will be **manufactured** to run quieter.

Great Western Beef Expo
Charolais Still Does It Best



Lloyd DeBruycker, Dutton, Mont., and his high gaining pen of Charolais cross steers: 3.24 pounds per day, all graded choice and were the test's overall grand champion pen, based on both gain and carcass quality.

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Every steer of the high gaining pen graded choice and averaged only 456 days of age.
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$1.31 per day, pen average, from the high-gaining pen, which also was the second best set of carcasses.
- **BEST Production of Lean Beef per Day of Age:**
.920 lbs. pen average. Four of the five Reserve Grand Champion steers, overall, graded choice — from carcasses that were 7/8 and 15/16 Charolais, a real example of Charolais' beef quality.
- **BEST Single Carcass:**
Averaged 3.16 lbs. per day and had a 2.81 lbs. weight for each of its 437 days of age — one of the youngest steers on the test.
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Doesn't that tell you something? That Charolais, handled as all other breeds, will give you the fastest gains and still produce carcasses of the quality demanded by consumers? That Charolais grades at young ages? That high percentage Charolais carcasses approaching purebreds grade as quickly as half-bloods?



Bill Blanton, Horse Creek Ranch, Ramah, Colo., had the pen producing the highest yield of lean beef per day of age—.920 lbs. per day. The pen was reserve grand champion, overall, based on gains and carcass merit.

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EMPIRE Farm Days . . . the show that gets it all together for the Northeast farmer . . . is just about ready for its annual summer performance. The tents are up, the exhibits are rolling into the huge outdoor showroom reserved for this king of farm shows, and everything is being set and primed for some 50,000 visitors expected to be on hand for the three-day event.

The 1973 field days will be held August 7, 8 and 9 at the same location as last year . . . the 2,600-acre Cornell Animal Research Farm just off Rt. 38 a few miles south of Dryden, New York. The host will again be the New York State College of Agriculture and Life Sciences.

But this year, there will be a dairy herd in last year's empty barns. Some 500 animals are in the three barns for milking animals and free-stall areas for young stock. The herringbone milking parlor is being used. So are two maternity wards and two nurseries.

Two of the Harvestore silos, plus one other silo, are in use for hay-crop silage. A staff member will be on hand to discuss construction of the bunker silos. And the New York State Dairy Princess will be giving out free milk in the barns.

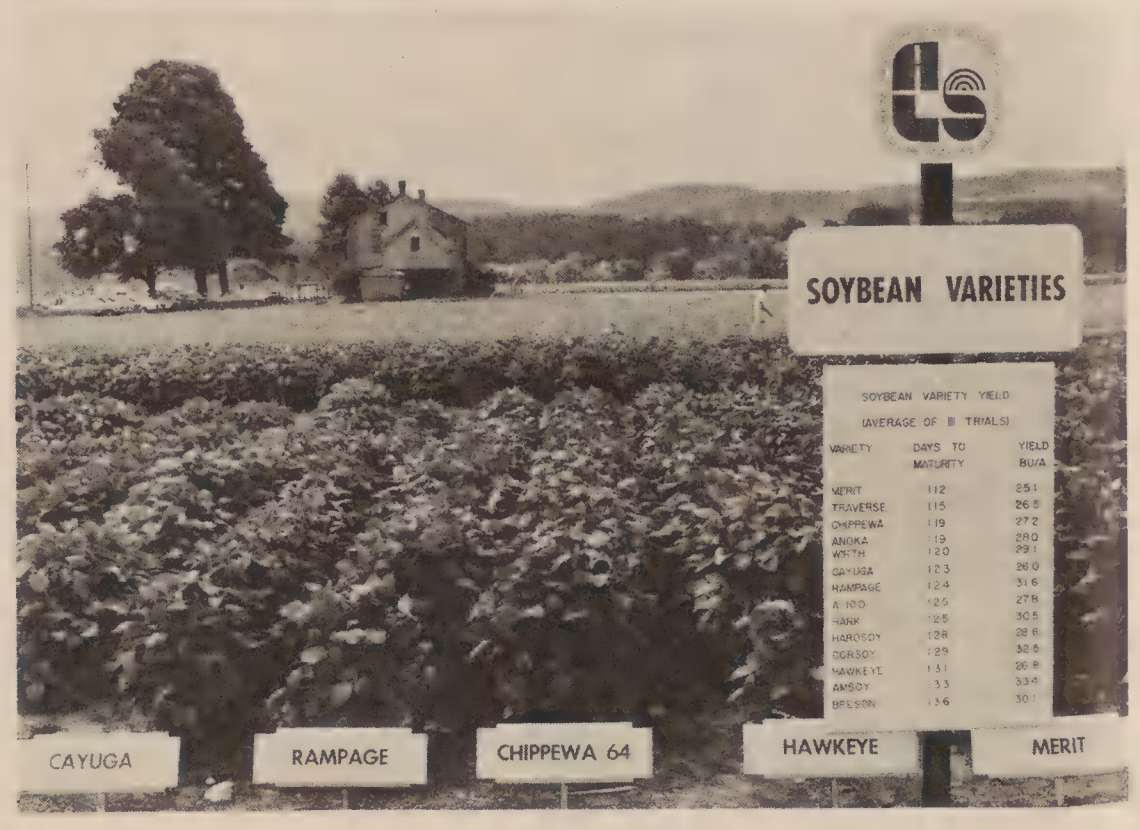
Other College staff demonstrations include test plots of different varieties of alfalfa, clover, birdsfoot trefoil, crownvetch and corn for comparison purposes. One area is planted to no-till corn. Several varieties of soybeans are growing. A planting of cabbage will be ready for a harvester demonstration. New vegetables for the home garden, including compact varieties to suit the small garden spot, are flourishing.

The new Hudson potato developed by Cornell plant breeders is being grown along with older varieties to demonstrate the increased production of the new variety. Twice each day, hot baked potatoes will be distributed in the College tent. Here visitors can listen to 15-minute talks on various topics, watch films . . . or just rest. There will be opportunities for young people and their parents to talk with a staff counselor about admission to the College.

In addition to the College demonstrations, more than 160 exhibitors will be on tap with a veritable supermarket of equipment and supplies for the farm industry. There will be daily demonstrations of plowing, tilling and harvesting . . . seeding, feeding and weeding. An innovative departure from the usual cut and dried demonstration methods will be one or more machinery exhibits with attractive girls on hand to tell about the manufacturer's product line.

(Continued on page 31)

This planting of soybeans is typical of the test plots visitors can see at the 1973 Empire Farm Days.



Yorktown Grange fair

Few can resist the lure of an old-fashioned country fair such as the one Yorktown (New York) Grange members have been sponsoring each year since 1923. Their 1973 Golden Anniversary Fair . . . quite likely to be the biggest and best so far . . . is slated for September 7, 8 and 9 at the Rochambeau Park Fairgrounds in Yorktown Heights.

Some 30 persons, mostly farmers, attended the first fair 50 years ago. Today the event attracts upwards of 20,000 exhibitors and visitors. Although the fairgrounds (named for a French general headquartered in Yorktown Heights during the Revolutionary War) are just 30 miles north of the largest city in the world, the Grangers have somehow managed to resist commercialism, and maintain the old-time rural flavor that makes their fair unique.

A few carnival rides are offered, but nearly all the people who work at the fair are volunteers, and the exhibits are a good place for folks to show off the fine things they've raised in their gardens or made with their hands. Popular exhibits include fruits, vegetables, flowers, livestock, needlework, art work, and baked goods. Proceeds are channeled back for use in community service projects, many geared to youth programs.

Chairman for this year's fair is Jerry Mulcahy, Cooperative Extension agent, Westchester County 4-H. Mrs. Frank Vancas, master of Yorktown Grange, is program chairman. Honorary chairman is Arthur C. Lee, a long-time member of the Grange and an authority on local history.

If you've never been to a country fair, try it! You'll like it!



Youthful exhibitors show their livestock at last year's Yorktown Grange Fair.

Join . . . . .

(Continued from page 30)

Displays will include storage units and silos, farm buildings, roofing and siding materials, trucks and tires, packaging equipment, irrigation, lightning protection, pharmaceuticals, petroleum, finance, insurance, auxiliary power, AI organizations, and many more.

Programs of special interest to women, including a fashion show, are being planned. See Augusta Chapman's "Northeast Living" pages for details.

No need to worry about food or shelter, either. There will be several food concessions on the grounds, and many good restaurants and motels are only 15 or 20 minutes away.

Empire Farm Days is sponsored by the Empire State Potato Club in cooperation with American Agriculturist, New York Farm Equipment Dealers Association, New York State Electric and Gas Corporation, Niagara Mohawk Power Corporation, and Rochester Gas and Electric Corporation. Also participating will be the New York State Extension Service, expecially the Extension Associations of both Cortland and Tompkins counties.

Admission is free; there's plenty of free parking. And don't let the carnival-like setup fool you . . . this is a family show and there's not a hootchy-kootchy tent or fleece-'em booth on the entire grounds. It's a show that's all business, but business in a friendly, congenial atmosphere. See you there!

Vegetable growers are invited back this year to see the test plots at Cornell's Vegetable Research Farm, one mile east of Freeville on Fall Creek Road, on their way to or from the site of Empire Farm Days. More than 700 vegetable varieties are grown there, including 50 varieties of tomatoes, 70 of corn, and 20 of potatoes. Weed control methods can also be observed.

A good lightweight chain saw has most of these features.

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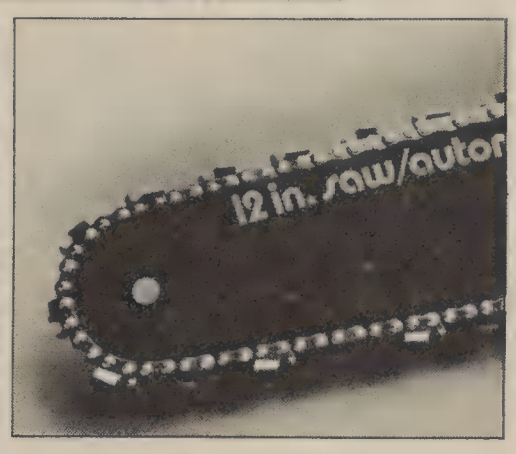
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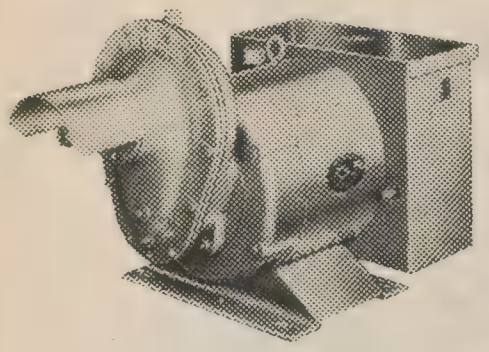
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Thurs., Aug. 16 – 7 P.M.	Fri., Aug. 17 – 12:30 P.M.
7,000 lb. stock	7,000 lb. modified
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— Empire Farm Days August 7, 8, 9 —

Welcome inspector

Traditionally, farmers don't cotton much to inspectors . . . whether they be from the milk plant, the U.S. Public Health Service, the labor departments of state or federal government, or any of the rest. An exception to that rule is Wayne Kroutil, chairman of the Agriculture Industries Department at the Agricultural and Technical College at Alfred, New York. He's a registered professional engineer (mechanical and civil) in both New York and California.


Wayne Kroutil

During the summer, when the regular sessions of teaching aren't underway at Alfred A & T, Wayne inspects lightning-rod installations for Underwriter Laboratories . . . between 500 and 700 a year. More than half involve farms, usually dairy farms.

"A master label on such installations means that most insurance carriers will reduce premiums by 15 or 20 percent," he comments. "So UL approval can result in insurance-premium savings that will pay for the system over a period of years . . . not to mention providing more peace of mind, and avoiding the agony of a major lightning-caused fire.

Gypsies

"The business of lightning-rod installation," he continues, "has more than its share of what we refer to as gypsies. They install 'em cheap . . . and all too often the system is worse than none at all. A good system isn't cheap, but you get what you pay for."

Kroutil, who hails originally from Oklahoma, has also worked with a number of attorneys concerning such things as silo failures and equipment-related accidents. A 30×60 steel silo, for instance, collapsed during erection . . . and the farmer and attorney involved got Kroutil's advice. The company settled the matter out of court to the farmer's satisfaction.

"There are some instances where a professional can draw from his experience and help a farmer faced with possible litigation," Wayne comments. "Occasionally, a supplier may drag his feet about making a reasonable settlement for poor performance . . . just the involvement of a professional engineer may cause the supplier to change his mind." – *G.L.C.*

SOIL MAP

Locations and descriptions of 153 soil groups in Pennsylvania are available in the **Land Resources Map of the Commonwealth,** published by the Agricultural Experiment Station at the Pennsylvania State University.

Presenting land resources in graphic form, the map is unlike anything published previously for Pennsylvania. It brings together information on soil depth, drainage, available moisture, and productive capacities of soils.

Copies are $3.00 each, plus 18 cents state sales tax, from Land Resources Map, Box 6000, University Park, Pennsylvania 16802. Make check or money order payable to The Pennsylvania State University.

EASTERN ELK

A herd of 77 elk roams in a 70-square-mile area where Elk and Cameron counties join in Pennsylvania. The original animals were brought to the area between 1913 and 1926.

The only other elk herd in the eastern United States is at the Jefferson National Forest in Virginia.



What gloomier picture for a farmer than a burned barn? Alfred Leskovec, who farms on the "Big Flats" west of Elmira, New York, sadly surveys the ruins where 51 cattle died . . . and almost all of his equipment was destroyed. Only last year, 10 animals were killed on this farm by the terrible flood from Hurricane Agnes.

Food For The Spirit



by Robert L. Clingan

THE first Book of Kings tells the story of the prophet Elijah's coming to a poor widow in time of drouth and famine and asking first for water, then for bread. She could supply the water, but her home lacked bread. All she had were a few handfuls of meal and a small flask, or cruse, of cooking oil.

Elijah commanded her to use them to make two small loaves of bread, and assured her that she would never lack meal or oil, as long as she used what she had.

This is a miracle story. Yet it does point up a great truth about life and faith . . . we will have enough of much in life, only if we use what we have.

Jesus follows the principle in His acts of healing. In every instance recorded in the Bible, Jesus required the person He helped to **do** something, to **act** on the faith he had, for the faith that no one uses will disappear.

He anointed the blind man's eyes with moist clay, and told him to **wash** them out. He told the lepers He healed to go and **show** themselves to the high priest. He told the crippled man, "Take up your bed and **walk**." Start where you are, do what you can, use what you have. This is an act of faith.

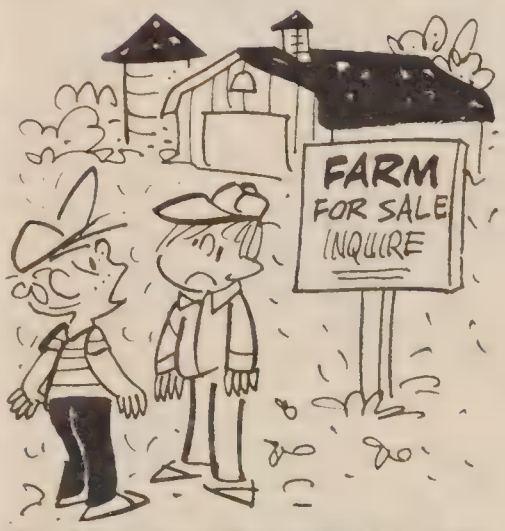
Lived by Faith

Dr. George Washington Carver, the eminent Negro scientist who made so many products from peanuts, lived by this principle and taught it to his science students at Tuskegee Institute.

When he began teaching there, he found he had no laboratory equipment at all, and no money in sight to buy any. He sent his students on a scavenger hunt through the junkyards of the nearby city, for materials to equip a laboratory. The students brought back bottles, glass tubes, copper wire, and out of their scrounging a laboratory took shape.

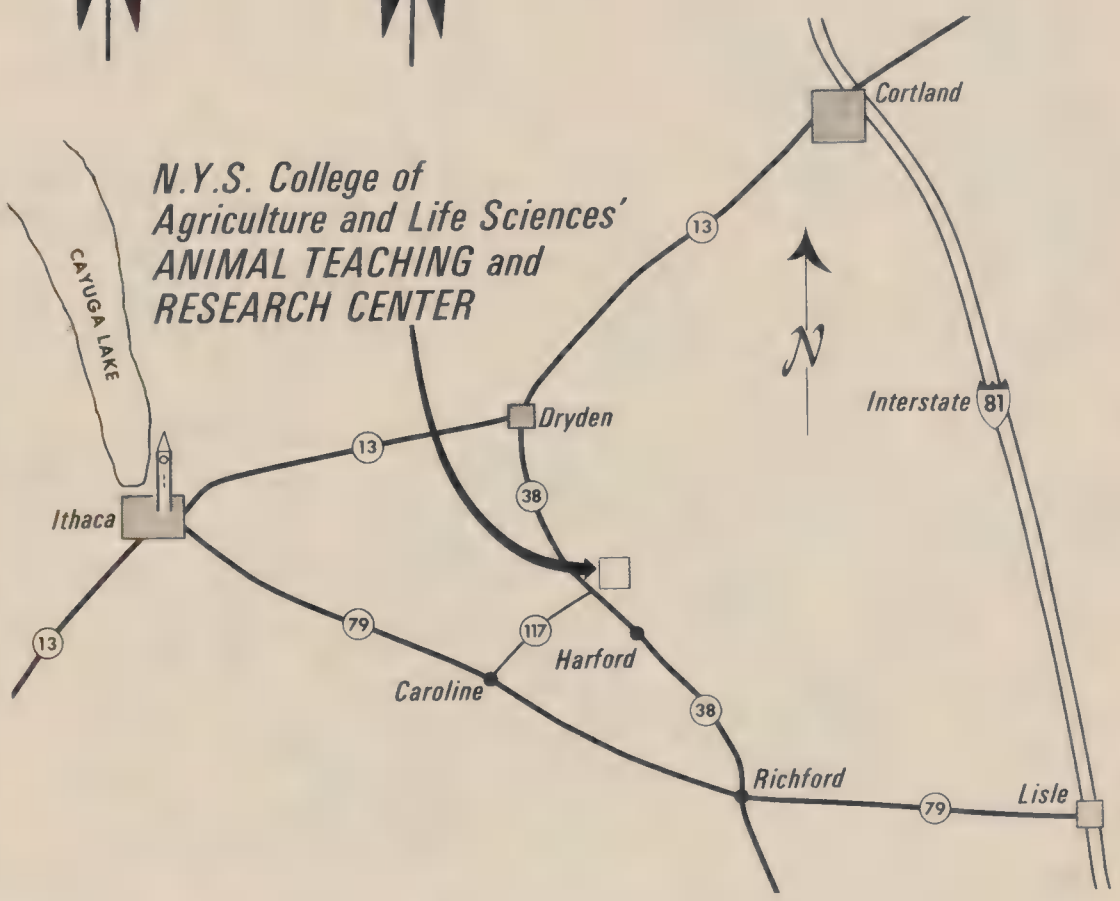
These students learned more than science. They learned a principle of life . . . start where you are, do what you can, use what you have.

FLETCHER THE 4-H'R



"OH, IT'S AN EXCEPTIONALLY GOOD PRICE BUT IT'S DEGRADING TO LEARN THEY WANT TO BUY YOUR FARM FOR A GARBAGE LAND FILL!"

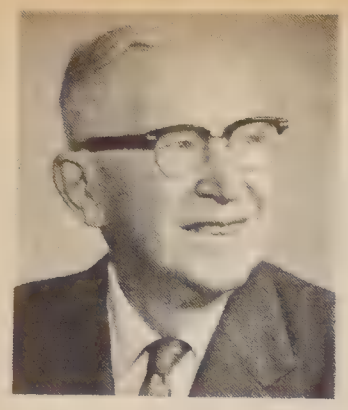
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AUGUST 7, 8, 9, '73

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by Amos Kirby
New Jersey Editor

Public gets the word

THE public is getting the word on food prices and product shortages, and a basic understanding of what is involved in growing and marketing food.

This sums up one of the facts I learned during a 7,500-mile trip that included all three of the far western states, plus the thinking of many who live in the Midwest.

The public has come to realize that food may never again be as cheap as in recent years. Although there are protests over retail prices, there has come a realization that it will be better to pay a higher price for food than to find no food available.

The food shortage situation has been published in the press . . . along with day-by-day reports of floods in the Mississippi Valley, the threat of a gasoline and fuel shortage, and reports of unusual weather.

BARE CUPBOARD

For the first time in years, the cupboard is about bare. For the first time in a quarter of a century, there are no large government grain supplies available. Those great holdings of wheat, corn and other grains have been marketed; only limited supplies remain.

The soybean is one crop that has taken the center of the stage. Booming sales of soybeans abroad, and the increased domestic demand for livestock feeding, has reduced the carryover to a point that we'll be down to a two-week supply by September 1. One year ago, soybeans sold for about $3.50 per bushel. Late in June, the market was above $10 per bushel, with a top of about $12 earlier. Soybean meal that one year ago was selling at Peoria for $94 a ton has been difficult to buy at $390 per ton.

The high cost of feed for producing meats, milk and eggs has been intensified by the light catch of anchovies off the coast of South America. In fact, Peruvian officials are so alarmed over the disappearance of these fish that they have embargoed shipments to both Europe and the United States.

MEAT SUPPLIES

The most recent reports in the city press warn the public of even higher prices on eggs, meats and other items.

One poultryman, when he was billed $7.50 a hundred for mash, refused to accept the feed and sold his flock. Every layer that goes to market today means fewer eggs tomorrow.

As people become more affluent, they are demanding and eating more meat. To meet that demand, Russia, Japan and most European countries have been buying American grains to feed cattle. Recently, Mexican authorities placed an embargo on cattle shipments into the United States because their own people are eating more meat. One can quote many references to food shortages around the world . . . and right now this country is the prime source of food and the grain to produce meat.

FRUITS AND VEGETABLES

The fruit and vegetable situation is much the same as with other food products. Unless one digs into the figures, it's hard to imagine how much it takes to feed the people of this country.

In just one week last winter, there were shipped to market via rail, air and truck over 16,000 carloads of perishables! U.S. consumers pack away up to 3,000 cars of white potatoes a week. During the week ending June 20, 1973, U.S. growers marketed 300 cars of watermelons; 2,200 cars of white potatoes; 500 of onions; 600 of tomatoes; 1,200 cars of cantaloupes. In 1972, California growers marketed 9,000 carloads of strawberries, and sent 260 car-equivalents via air to Europe!

Last winter, when in Nogales, Arizona (the port of entry for Mexican winter vegetables) I saw tomatoes being loaded on trucks to be hauled to New York and then air-freighted to Europe.

I may be wrong, but based on studies and trips here and there, I am convinced that if any crop can be harvested in 1973-74, it will command prices that will cover costs of production plus a little profit for the grower.

COUNTING PEACHES

How many peaches per tree does it require to be considered a good crop? Leslie Miller, county agricultural agent in Camden County has this yardstick:

A large, healthy mature peach tree can carry 1,200 to 1,400 fruits . . . trees 6 to 8 years old, 800 to 1,000 . . . 4-5 year old trees, 400-600.

FARM COSTS

Costs of most items used in farming are higher this year. A part of the higher prices of fertilizer can be laid to shrinking supplies of natural gas. This item is most important in the production of urea, a source of nitrogen-rich ammonia.

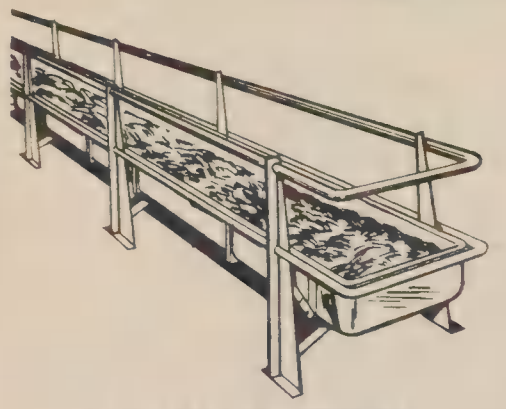
Here again, foreign demand for phosphate and nitrogen adds to the cost of fertilizer . . . another example of rising demands that this country had not anticipated.

CHEAP LAND

One of my objectives on the trip to the West Coast was to look for cheap land. While there may be some around, it is getting scarce. Each

(Continued on page 35)

VAN DALE



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See us at EMPIRE FARM DAYS

Land use recommendations

THE "Blueprint Commission on the Future of New Jersey Agriculture" has listed 13 recommendations intended to retain agriculture as a healthy part of the Garden State's economy.

Although all are important as a part of the total package, the one receiving most attention is the first proposal listed in the report . . . to create a statewide Agricultural Preserve of a million acres.

Each municipality in the state would be required to designate an Agricultural Open Space Preserve within its boundaries composed of at least 70 percent of its prime farmland. The preserve would become part of the local master plan and should reflect the local community needs for open space and other agricultural benefits.

Can Sell

Landowners whose properties are located in a preserved area would be able to sell the development easement to their land to the state administering agency or to others.

The rate of compensation for development easements would be the difference between the market value for the land and its farm value.

At the option of the landowner, the easements could be held for later sale and the compensation for delayed sales would reflect the increased development value of the easement had the preserved area not been established.

The program would be financed by a tax on **all** real estate transfers in the state. The rate would be at 4 mills, or 4/10 of 1 percent of the transfer value at the time of the sale. In nearly all instances, the tax would be paid for realized capital gains on the real property transferred.

Administration

The responsibility for administration of the program would be vested in a board of directors composed of persons appointed by the Governor and approved by the Senate and selected ex-officio members of state government. The professional staff would be attached to the New Jersey Department of Agriculture.

"This concept, if adopted, would be unique in the United States," New Jersey Secretary of Agriculture Phillip Alampi said, "although it is not unknown in several highly-advanced nations in Europe which for many years have felt pressures similar to those faced by the Garden State, the most urbanized state in the nation."

Others

The other twelve recommendations involve:

1. Expansion of education programs in agriculture and natural resources.
2. State and federal legislation to bring agriculture under a labor-management relations act designed for agriculture.
3. Strong support for the current farmland assessment program.
4. Federal legislation is needed to increase the taxable estate exemption, and to tax qualified land for estate purposes on the basis of its agricultural value.
5. Farmers must seek to continue upgrading their management capabilities.
6. Further develop farmer-to-consumer marketing channels.
7. Complete the Cooperative Soil Survey, and implement a sizable list of programs to enhance natural-resource quality.
8. A unified voice for farmers is needed through cooperation or consolidation of the numerous farm organizations in the state.
9. An agricultural Waste Council should be established.
10. Research remains vital to agriculture.
11. The Rural Advisory Council should serve in an advisory capacity to a series of programs expanding agricultural and rural development.
12. Charges by local municipalities on special-purpose utility authorities should be levied against farm properties on the basis of current assessment rather than on a front-footage basis.

Copies of the report may be obtained by writing: The Blueprint Commission, Box 1888, Trenton, New Jersey 08625.

Word . . . . .

(Continued from page 34)

person must determine to his own satisfaction what an acre of land is worth. To some, $100 an acre might be high, but to others in the Midwest, $800 and up is the going price. I have seen tomatoes growing on land far removed from urban developments that carried a price tag of $8,000 an acre!

If one is making a choice between land and blue-chip stocks, the dollar is safer in tillable soil . . . and it grows in value even if the land is not growing crops.

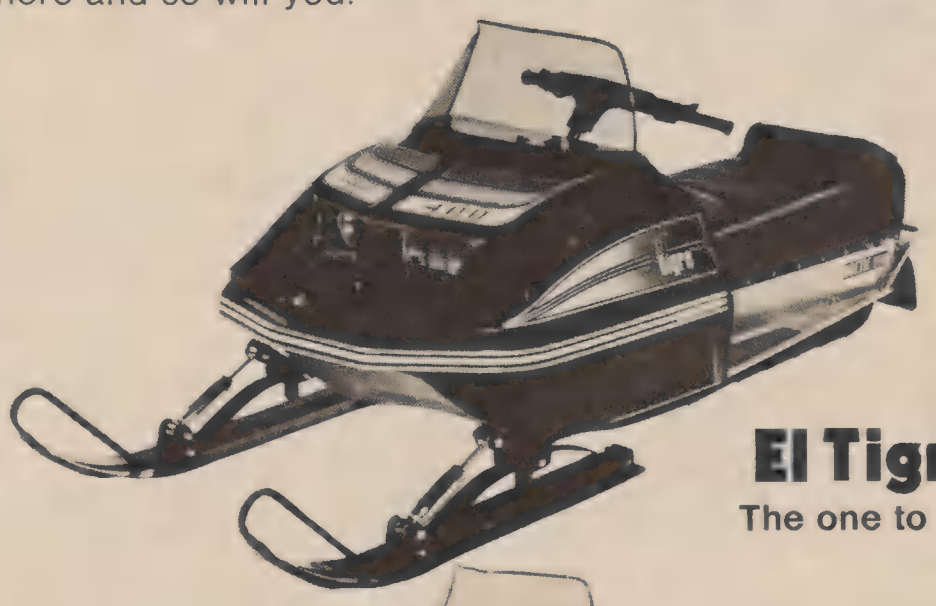
KEEP RECORDS

The New Jersey water use (irrigation) law has some real teeth. At the suggestion of farm organizations, the original law was changed so that it is not necessary to install water-usage meters if one pumps from wells or ponds more than 100,000 gallons daily.

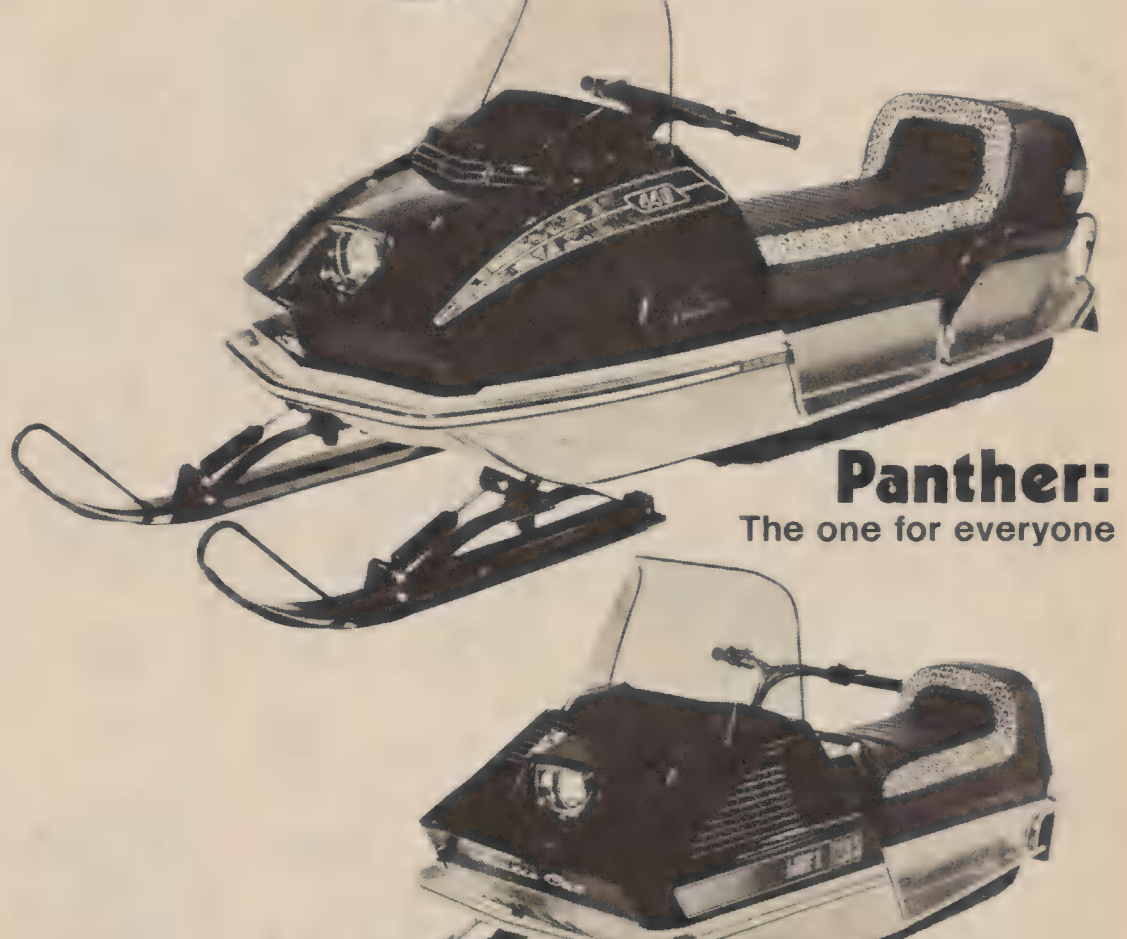
While a farmer in that category need not install meters, he must keep accurate daily records. If state inspectors call and find no records (or inadequate records), the grower will be forced to install meters. It is that simple.

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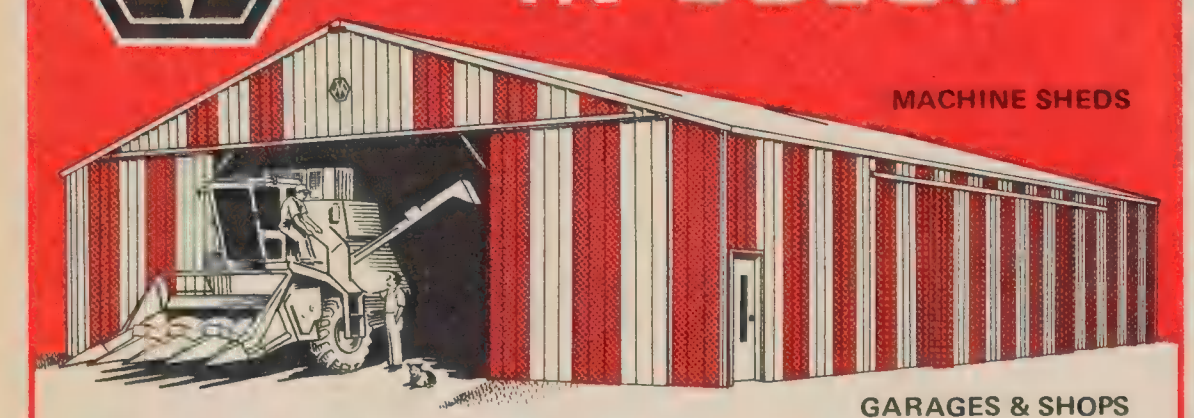
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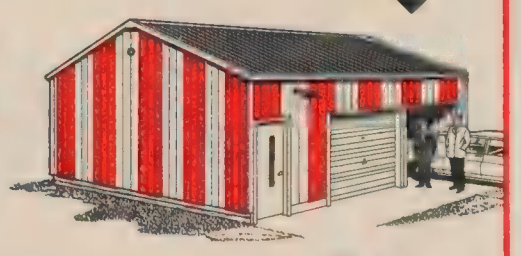
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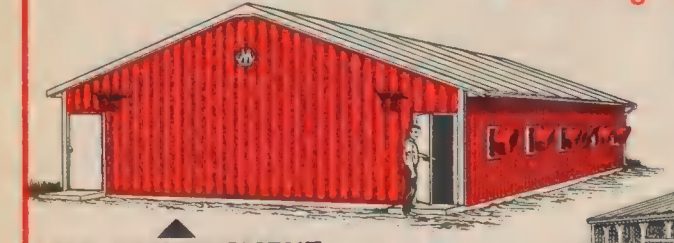
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PLEASE PRINT

Wheat . . . . .

(Continued from page 24)

The **extra** cost of certified seed is normally only a dollar or two per acre, and less than one bushel of extra crop will pay for that. Yes, I believe certified seed pays.

How about weed control in wheat?

Wheat is a member of the grass family and we have no good chemicals that will kill grassy weeds without damaging wheat. If the field has lots of quackgrass or nutsedge, you may be better off to hold it for corn next year and go into a herbicide program to eliminate these pests.

Broadleaved weeds can be killed in the spring with 2,4-D applied when the wheat is fully tillered but before flowering. Earlier applications can stunt plants and reduce heading. Later applications hurt yields.

Feed

You mentioned feed wheat. Where can wheat fit into a dairy or livestock-feeding program?

Anywhere that corn fits. Recent feeding studies in Oregon showed wheat equal to shelled corn as an energy feed for dairy cows, and superior to corn for hogs, lambs and poultry. Wheat has been substituted for up to 95 percent of the corn of the ration with excellent results, so long as it is coarse ground, rolled, flaked or pelleted.

Fine ground wheat or wheat flour should be kept to a minimum. This tends to gum up and cause palatability and digestive problems, and accounts for some of the older concerns about feeding wheat. In addition, most New York and Pennsylvania wheats will run 10½ to 11-percent protein, compared to 9½ percent for corn.

WOULD YOU BELIEVE?

Fantastic yield claims keep coming out of the Pacific Northwest. So as a recent visitor to that area, and as an eastern skeptic to boot, I decided to check out these stories, to see if they're true, and if so, how they do it. I picked a bad year, since their normal spring rains didn't come this year (I guess they came East to us). Even so I saw some outstanding fields including several that'll beat 150 bushels per acre, I'm sure.

Farmers in these states as a whole don't average any more wheat per acre than we do. But much of their acreage is what they call dryland (we'd call it desert) with less than 12 inches of rain per year. Where they get more rain, they get more wheat. Farmers in their **best** areas have really broken down the yield barriers and consistently harvest 90-100 bushels per acre. Give the best of these growers a good year and they'll hit 150 bushels per acre. And several years ago, one Washington field was confirmed by USDA and Washington state agronomists at 211 bushels per acre.

Hoping to get some ideas on how we might do the same, I visited with both research and extension workers and wheat growers in Washington, Oregon and Idaho. I didn't find any secret formula, but I did pretty well pin down what they're doing.

First off, those farmers getting high yields are carefully putting together each piece of a high-production package. They are professional wheat growers who pay close attention to their crop and make it pay. They plant shorter, stiffer-strawed varieties than we're used to, then sock on 120-150 pounds of nitrogen per acre. And yet their crops don't seem to lodge.

This puzzled me at first, since we've tried the same varieties in the East and they do poorly for us. (However, we can use some of the same parentage, and some of this is bred into Yorkstar.) And nitrogen rates like those above would knock our wheat flat. However, our soils contain much more nitrogen to begin with, running 3-5 percent in organic matter. Western soils seem to have far less natural nitrogen, with most averaging about 1 percent organic matter, so they need more applied nitrogen to produce a crop.

But all these are side issues, because their real advantage is climate. Their winters are very mild by our standards, and spring growth starts in late February or early March. Springs are long and cool, right through heading, flowering and filling of the grain. This gives the wheat plants maximum time to develop a long dense head with heavy full kernels.

Also, their rainfall is ideal for wheat, with most of it coming in the winter and spring. And their wheat plants get maximum light during flowering and filling, since there is rarely any cloud cover to block out sunlight in June. Add to this the fact that their summer days are longer than ours, since most of this region is north of our wheat areas. No clouds and long days together mean that their wheat plants are bathed in sunlight, long day after long day, during a period when ours are often under clouds. This high light converts into maximum grain production in the head.

Then since they'll get little or no rain all summer, conditions are beautiful for combining a high quality crop with few, if any, storms to blow down their grain (one reason they get away with so much nitrogen.) All in all, it's an ideal climate for growing wheat. We can push up our Northeast yields, and we'll see yields up to 100 bushels in a few years. But these northwestern growers will be tough to match, now or ever.

But while we envy them their wheat yields, they're jealous of what we do with corn, and many would be glad to swap crops. This same summer drought joins with late spring and early fall frosts to block most of them out of corn. Livestock operators would like to expand corn acreage.

Summing it up, there seems no magic way for us to grow monster wheat yields. Our best key is still close attention to top production practices, and in knowing what to do and when to do it . . . then doing it.





Cleaning Bees – Exposure to insecticides takes a heavy toll of honey bees. A pollen trap placed at the entrance of each beehive may largely eliminate the problem, reports J. C. Matthenius, supervisor of bee culture at the New Jersey Department of Agriculture.

Traps used by Matthenius consist of a double strip of corrugated aluminum sheeting to which a sheet of hardware cloth is attached at a 90-degree angle. The bee can get through the meshed hardware cloth, but the pollen is brushed off his legs as he goes through. Thus, no contaminated pollen can enter the hive to kill bees or adulterate the nectar from which honey is made. Cost of material for a trap is well under 50 cents.

Fruit Science – A new edition of Dr. Norman F. Childers' book entitled "Modern Fruit Science" has just been published. Special emphasis has been given to the compact fruit tree, chemical weed control and mechanical harvesting. Various commercial phases of fruit production have been updated.

Especially useful to growers, students, extension and research personnel and amateurs, the book can be obtained from: Horticultural Publications, Rutgers University, New Brunswick, New Jersey 08903. Price: Domestic, $16.50 plus 35 cents postage; foreign, $17.50 plus 48 cents postage.

Health Food – Nationwide, there are 3,000 health food stores whose 1972 sales totaled about $300 million. A few optimistic food industry analysts estimate that by 1975, health foods could account for some 40 percent of all U.S. food sales. So says the report summarizing a study by the Bank of America.

Even a small health food store, with annual sales of around $100,000, requires an initial investment of about $25,000. Costs for stock range from $8,000 to $16,500. In addition, cautions the report, even honest, well-managed stores will find it rough going to combat a slew of unethical practices within their industry, plus pending strict federal regulations.

The Bank of America's Small Business Reporter discusses the necessary considerations for starting a health food venture. To get a copy, write to John W. Wood at Bank of America's World Headquarters, San Francisco, California 94101.

Lonesome – "That tree is loaded with blossoms every year, but I never get any fruit." Many a non-professional fruit grower or backyard orchardist has voiced this complaint. Paul Stark, Jr. of Stark Bro's Nurseries has this advice:

"Just remember that in the case of many fruit trees, it takes at least two to tango. All fruit trees need pollination to convert blossom to fruit. Many varieties are self-pollinating. But some varieties of peach and apricot, most varieties of apple, sweet cherry, and pear, and all varieties of American and Japanese plum need another tree . . . a different variety of the same fruit . . . for cross pollination. If you have a fruit tree that blooms beautifully but never bears, the chances are that it's just lonely."

The company's catalog, which can be obtained free by writing Box X81263, Louisiana, Missouri 63353, contains complete charts covering pollination requirements of all fruit tree varieties offered. Your county agricultural agent also has information on the subject.

Along the Appleseed trail

The pioneers called him Johnny Appleseed. For more than 40 years, he tramped through the fertile valleys of the Midwest, clearing likely spots and planting the apple seeds he carried in sacks from the cider mills in Pennsylvania. Before he died, he saw thousands of acres planted in apple trees descended from his nursery stock.

Since then, many valuable apple varieties have come and gone. Some are lost forever. In 1940, however, the Worcester County Horticultural Society, Worcester, Massachusetts (which is the state where John Chapman, later known as Johnny Appleseed, was born), began to search for some of the most desirable old apple varieties, and later established an experimental farm in nearby North Grafton.

Famous Old Sturbridge Village has now entered into an agreement with the Society to perpetuate and expand this work, and establish a jointly-sponsored Preservation Orchard.

The Worcester County Horticultural Society . . . a modern-day Johnny Appleseed . . . has shipped thousands of scions for grafting, and will continue to send them to anyone who wants them. For further information, write the Society at 30 Elm Street, Worcester, Massachusetts 01608.

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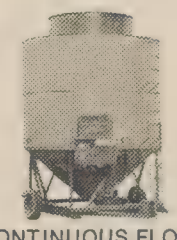
Yet the flail chain action rips, shreds, pulverizes and spreads even the hardest packed manure into a pattern fine enough for top dressing hay ground. Even frozen solids are handled with ease. Yet the liquid-tight tank gets all of the soupiest load to the field with no mess in the driveway or on the highway.

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Empire Farm Days
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RECOVERING

The floodwaters spawned by Hurricane Agnes thundered through the Corning, New York area late in June of 1972. A dairy farm (and milk bottling business) operated by Warren Stuart and his son Dean, along with his brother-in-law Floyd Knapp and sons, was one of the enterprises terribly damaged by the surging waters that engulfed the entire valley.

As if this weren't trouble enough, Warren suffered a massive heart attack four months later, and spent weeks in the hospital. But the human spirit has a way of rising from the torrent's mud . . . and from the valley of the shadow . . . to try again.

Rebuilt

The milk processing plant, carrying the official name of Stuart and Sons Dairy, is even busier than before . . . and the farm operation is geared to provide roughage for the farm's 200 cows, as well as sell some cash corn. Almost all hay crops go into silos as haylage, but young cattle and dry cows get dry hay.

"We had some displaced-abomasum problems," Dean reports, "and decided we'd better feed dry cows some roughage other than silages."

The Stuarts fill a 20×60 concrete-stave silo with high-moisture ear corn . . . and sell additional HMEC to other dairymen from the 550 acres grown.

The herd is milked in a double-eight herringbone milking parlor . . . two men using 16 De Laval 200 units that feature vacuum and pulsator rate automatically varying to fit the cow's preparation and letdown stage. Cows producing 40 pounds of milk or more per day are in one group in the freestall barn, those below that production level in another. Dry cows are kept in a third group.

Herdsman Donald Spencer does much of the vet work, and all the AI. Spotting cows in heat is a notorious problem with many larger herds, and the Stuarts recently had a Hereford bull vasectomized to function as a marker bull.

This is a herd-management technique that Dean learned about during his now-completed study at Alfred State College. His is an enviable record of many years of showing prize-winning cattle . . . and being named New York Distinguished Holstein Boy in 1972. He owns 40 head of livestock in the present farm operation, and is especially interested in growing and selling top-quality purebred livestock. — *G.L.C.*

Scholarship — The late E. R. Smith was for many years chief executive officer of the Seneca Falls Machine Company at Seneca Falls, New York. He was also an enthusiastic dairyman at his Poplar Ridge Farm . . . and served as director (and president) of the Eastern Milk Producers Cooperative.

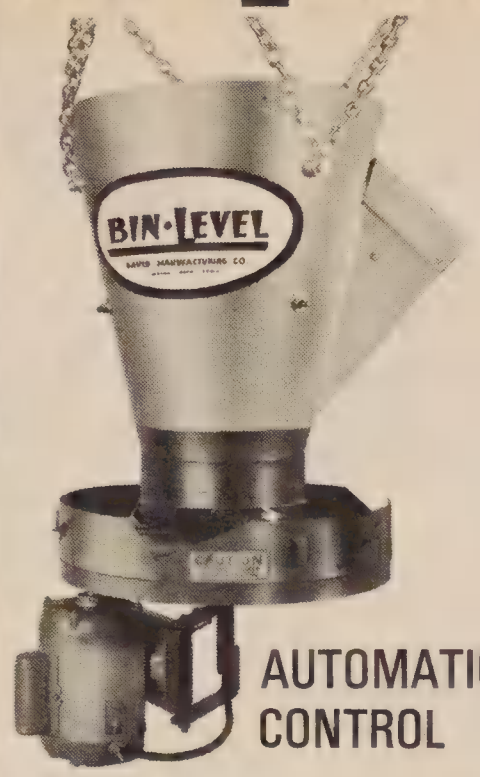
A scholarship in his memory has been established at the New York State College of Agriculture and Life Sciences at Cornell University. Contributions should be sent to: College of Agriculture — E. R. Smith Fund, Roberts Hall, Cornell University, Ithaca, New York 14850.

Feed-A-Whey — Research is underway at the University of Vermont to see how best to feed whey to dairy cattle. Cheese factories can no longer legally dump whey into water courses, so the scramble is on to find other means of disposal.

There's a whey-drying plant at Georgia, Vermont, but plenty of whey is still left over. So far, the experiment indicates that whey is a good feed for cows.



Dean Stuart holds the notebook presentation that won him the title of "Distinguished Holstein Boy." Ribbons for showmanship and prize-winning cattle line the walls.

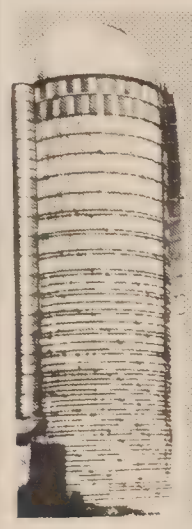
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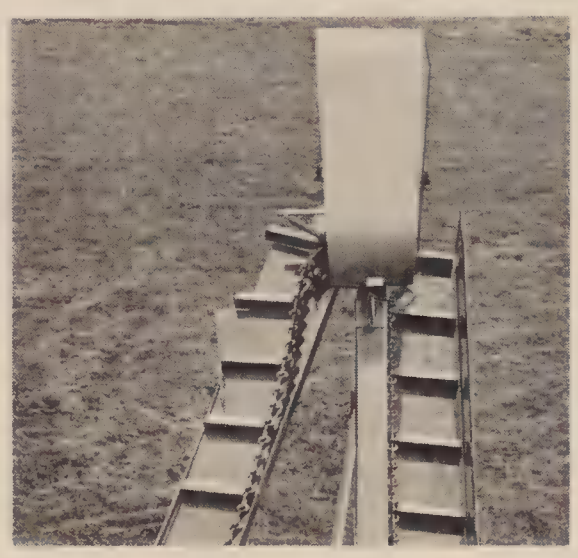
With Our ADVERTISERS

At Empire Farm Days



Recognizing that women are as much a part of the farm team as men, Allis-Chalmers will have pretty girls on hand to explain the virtues of A-C's new line of "quieter than the quietest" tractors in big horsepower sizes. The 130-hp 7030 and 156-hp 7050, as well as the Gleaner M combine, will be presented in continuous live shows daily.

The new Berg Split Chute eliminates reverse curves. End result: reduced friction, less wear, lower power requirements and durable, efficient barn cleaning at lower initial cost. Visit Berg's exhibit at Empire Farm Days.





The Trojan Seed Company, developer of the new TXS92 hybrid corn with unusually strong seedling vigor, will be an exhibitor at Empire Farm Days. The new 92-day hybrid is said to be extremely tolerant to leaf blight diseases and drouth.

Deutz Tractor Corporation will exhibit its line of air-cooled diesel tractors and a new line of Deutz-Fahr implements. Of special interest will be the corn chopper being introduced this year.



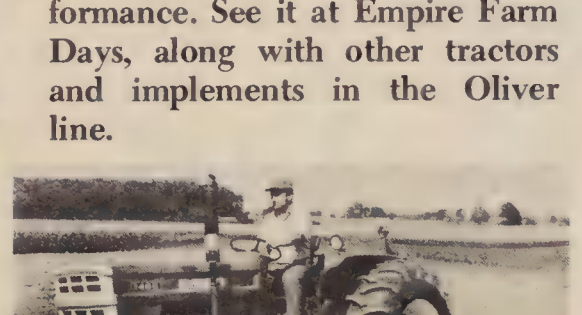


Massey Ferguson has entered the forage harvester market with a high-capacity, pull-type machine for use with tractors from 90 to 175 hp. A representative at their Empire Farm Days exhibit will be glad to tell you all about it.

White Farm Equipment's new Oliver 1465 is a versatile 70 pto hp yard and field handyman delivering all-around utility performance. See it at Empire Farm Days, along with other tractors and implements in the Oliver line.



Be sure to stop by the International Harvester display to find out about their new hay-making team that can cut a farmer's field time by about one-third. It's the unique windrow placer attachment for I-H's 990 mower conditioner and the No. 8 front-mounted rake.

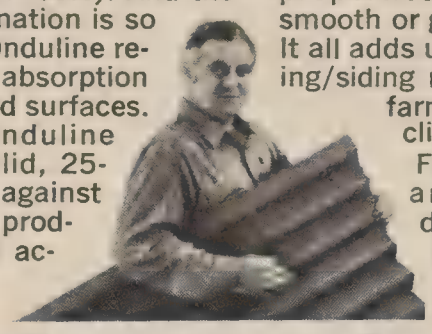


Dairymen benefits from Eastern AI Cooperative's breeding programs will be a feature of the Co-op's Empire Farm Days Exhibit. The 1973-74 Sire Booklets will be available. And stop by Eastern's headquarters on Judd Falls Road, Ithaca, anytime from 2 to 5 p.m. on August 7, 8 and 9, for a guided tour that includes a milk (or coffee) and donut break.

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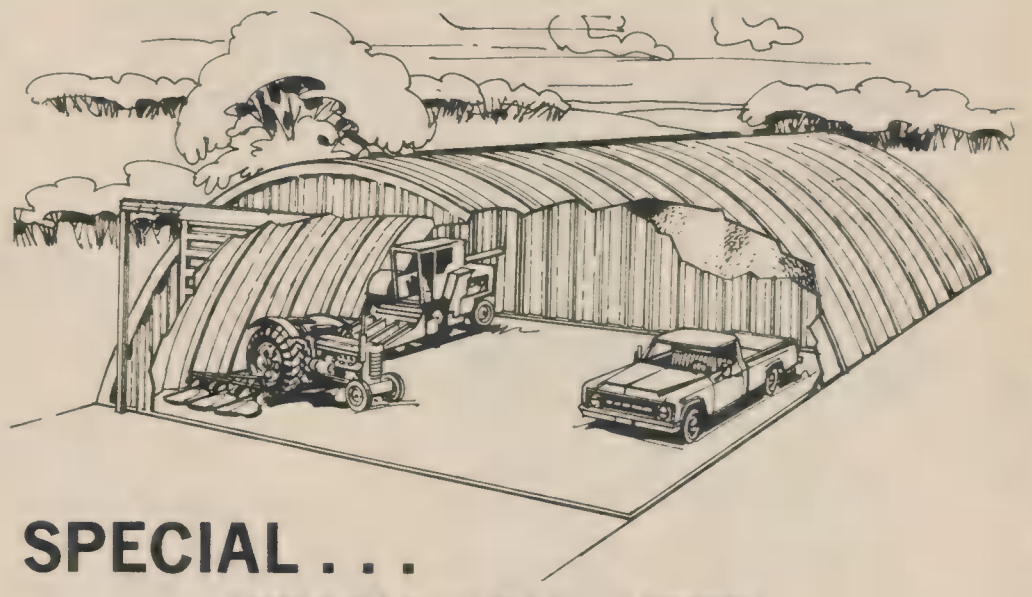


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BEACON FEEDS

by Romeyn Berry

GERANIUMS *in the* WINDOW



Let it be made clear at the start that I am not a farmer. I have never been a farmer. But for ten years I've been saving up to get a farm and jogging around on the dirt roads looking for one. That ought to give me the right to discuss the problems of the farmer. Lots of people do it on less.

There are two reasons why I have never bought a farm in ten years of looking for one and after thousands of miles of conscientious dirt-roading. I want a farm with an expansive view and there must be beside it a trout brook, — or at least a brook that looks trouty. The farms with expansive views are apt to be located on hill tops and the trouty brooks perversely insist on leaving the hills as soon as possible and on getting themselves into the valleys. The other reason is that every time I get enough saved up to make a first payment on a farm, some child has to go to college instead, or the old Ford breaks down completely and the farm money has to go for a new one. And so it goes.

But though I've never yet acquired the farm, I still have hopes and the long search has not been wholly barren of results. I have at least picked up some ideas of rural life. One of them is that you can tell a lot about the people who live in any house along the road by observing the wash with which they adorn the clothes line of a Monday morning. It's another idea that it is important on all farms to have geraniums growing in the window all through the winter. Begonias, too, if you insist, but anyway geraniums.

When I was a small boy we always had plants blooming in the house during the winter. All the neighbors did too. Begonias and geraniums, mostly, but also fuchsias and azaleas. Families in big, white houses with green blinds and red barns always had bay windows on the sunny side chuck full of gay bloom and climbing vines. And the lowliest tenant cottage possessed at least one red geranium vaunting itself from a tomato can on the window sill. To this day I maintain that a red geranium vaunting itself from a tomato can on the window sill is both an important symbol and a sturdy expression of the American spirit. It is spontaneous, unstudied eloquence. The geranium in the window flashes a scarlet, wanton challenge to the February storm. It expresses a pathetic, human longing for the spring to come, a note of encouragement to the passer-by and a brave defiance of the winter on the part of a self-reliant people.

A farm run down at the heel is not necessarily a melancholy sight. It all depends on whether it's coming or going. Indeed a good farm which, after years of neglect, is being brought back to productivity, is one of the gayest sights along the road, and when the new people start by putting geraniums in the window it's a pretty good sign that the place is on the way back. There'll be a new roof — or at least a good patching job — pretty soon and the garden will be made at the right time and the fences fixed. You just mark my words; when geraniums appear in the window there'll be curtains in that same window the next time you go by and the wood will be neatly stacked in the shed. When the new stock comes it will be good stuff and not scrubs and the children will have pink cheeks and will wave back to us in a friendly way.

In the meantime, while I'm saving up for the farm, I do the best I can by always raising a geranium on my desk in the winter — on the side next to the window. The geranium stands up bravely among the open books, torn papers, unanswered correspondence, tobacco, ink, pencils and brick paperweights, and its rearing gives me lots of useful experience in farm practice that I know will come in handy later on. Frequent cultivation is extremely important. I cultivate my geranium at odd moments with the butt end of a pencil, while I'm

trying to think of just the right word, stirring the soil and breaking the clods into small pieces. Intelligent pruning shows results in sturdy and compact growth. I do mine with a Gillette razor blade. But the real miracle is produced by fertilization. I keep one of these nationally advertised, concentrated fertilizers in a half-pound candy box and apply it a little bit at a time as a careful and judicious man puts a little more salt on his mashed potatoes. You should see the way that geranium responds. It practically whinnies every time you give it a pinch of nationally advertised, concentrated fertilizer and highly resolves to enter itself in the next flower show.

Perhaps the rearing of a single geranium, however scientific and successful, hardly qualifies one as an agricultural expert, but there are compensations in limiting oneself to just that until the time comes to buy a pair of rubber boots and become a full-fledged farmer. You don't have to get up out of a warm bed at four o'clock in the morning to milk a geranium. It doesn't slap you in the face with a wet tail as you tend it. And you don't have to sit up all night with a geranium when it's having little geraniums.

And when the farm comes, however suddenly, we'll be ready for it. If we woke up some morning and found that Santa Claus had brought us a farm with a white house and a trout brook on it, all we'd have to do would be to walk right in, hang up our hat and put our geranium in the window. Then we'd be home.

November 23, 1935.

Editor's Note: The late Romeyn Berry wrote about the rural scene with unusual understanding and subtle humor. From time to time, some of his "Writin's" will be reprinted in the pages of AMERICAN AGRICULTURIST for your enjoyment . . . this month's issue includes the first of that series.

His comments are as relevant as tomorrow . . . about the rolling seasons, the weaknesses and strengths of people, the hopes and fears of folks like ourselves, a chuckle now and then to lighten the burdens of the day.

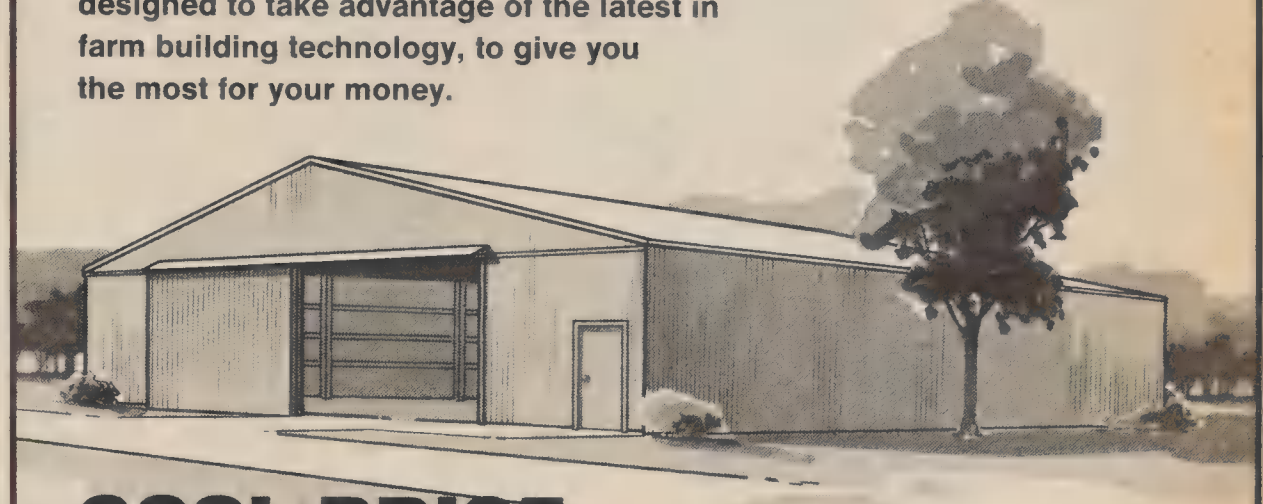
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BOOK REVIEW



Railroads — Adam Underwood, a long-time employee of the railroads and the Interstate Commerce Commission, is author of "Let's Nationalize American Transportation Now." He believes that northeastern farmers would benefit from his plan.

Available from Dorrance & Company, 1809 Callowhill Street, Philadelphia, Pennsylvania 19130 at $5.95 per copy.

Amish Neighbors — A plea to Americans outside the Amish faith to help these pious, hard-working people preserve their quiet, peaceful way of life is voiced in a new paperback book, titled "Amish Beliefs, Customs and Disciplines," by Gerald Lestz of Lancaster, Pennsylvania.

The Amish are staunch advocates of self-help. They stay off the relief rolls, take care of their own aged, and render mutual aid in time of crisis and need. They believe in thrift and sharing. Yet these unusual citizens have come into conflict with the law of the land in unusual ways. Will the larger society and government around them allow the Amish to live as they wish, or will their entire culture be extinguished by their fellow man?

The 28-page book, with color cover and numerous photographs, is an effort to provide clear and correct information about the Amish, their traditions and activities, and how and why they have come before the courts. Books are available, at $2 each, from: John Baer's Sons, Publishers, Box 328, Lancaster, Pennsylvania 17604.

Speculation — Productive agricultural land is one of the best long-range investments on the market. It's also one of the most risky, and anyone who contemplates such an investment should first read LAND SPECULATION: AN EVALUATION AND ANALYSIS, by Brig. Gen. Harold L. Oppenheimer. Its small cost could save you hundreds, perhaps thousands, of dollars.

The author clearly and realistically describes the pitfalls of which the investor must be wary, the guiding principles he should take into account before he parts with his money. Although largely addressed to the prospective purchaser of farm or ranch lands, it may also prove a wise investment for those who propose buying any form of real estate.

Published by Interstate Publishers & Printers, Danville, Illinois, and available through American Agriculturist, Book Department, P. O. Box 370, Ithaca, New York 14850. Price $9.95, plus the sales tax in your area.

Lube Information — The American Petroleum Institute has available (for 15 cents each), a pamphlet entitled "Farm Equipment Lubrication." It answers the most commonly asked questions about this topic.

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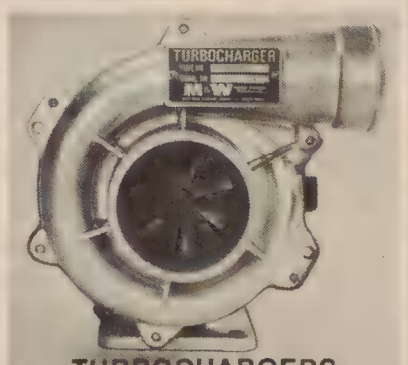
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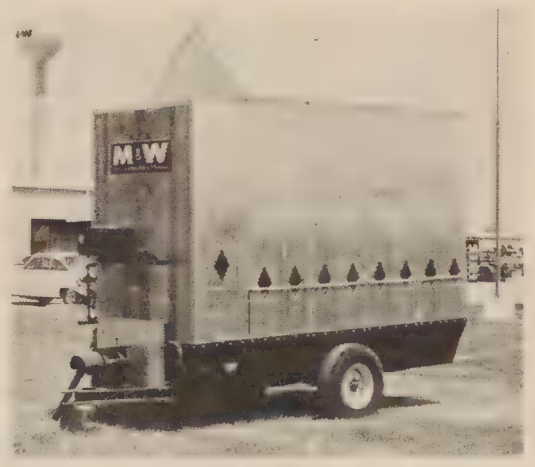
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Drop by the Hesston exhibit and learn all about the new Stak-Hand 10, made especially for the small-farm owner who wants to put up his hay in labor-saving one-ton stacks. Hesston also makes the Model 2000 pull-type forage harvester and the Hydro Swing 1014 pull-type windrower.



This is M & W Gear Company's Model 155 Perfect Kern'l process grain dryer, the smallest of four models offered. See it on display at Uebler's exhibit.

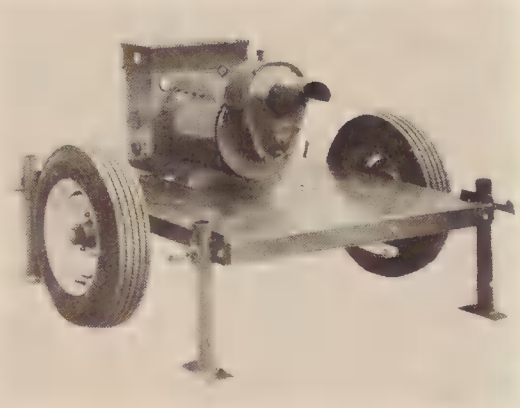


Sperry New Holland plans to feature the new Model 707 tractor-mounted forage harvester. Designed for the farmer who chops less than 40 acres of corn silage annually, the machine is capable of cutting up to 29 tons of corn silage per hour.

An all-steel Butler Farmsted building will highlight the Butler Manufacturing Company exhibit, which will also include a Farmsted garage and a Kan-Sun continuous-flow grain dryer.



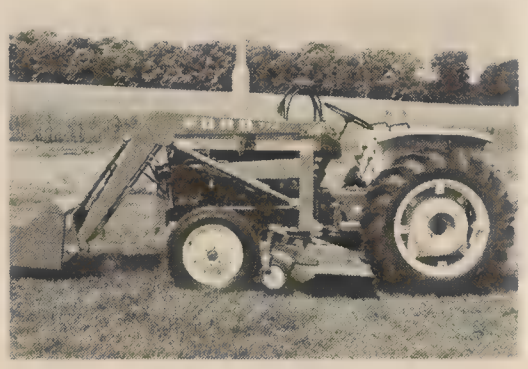
Winpower Manufacturing Company plans to exhibit their new 45/25 Motor-Alternator, combining a 45-kw standby alternator and a 40-hp electric motor for many on-farm jobs. Put it on the tractor, and it's a generator . . . hook it to the power line, and the same unit is an electric motor.



The roof of this A-frame dwelling is sheathed with Onduline corrugated sheets for a pleasing appearance . . . and a tight weather seal. Visit the Onduline U.S.A. exhibit at Empire Farm Days and learn all about this unique maintenance-free, low-cost roofing and siding material that carries a 25-year guarantee against leaking.



Ford's all-new "Mighty Might" 1000 tractor will be on display at the field days. It's a versatile machine, capable of mating with a host of implements to do a variety of farm chores. After winning New York State Rural Safety Council's awards for 1971 and 1972, Ford Motor Company will again be promoting agricultural safety at the 1973 Empire Farm Days.



Empire Farm Days—for Women Too!

Ladies, when your husbands announce they are going to **Empire Farm Days, August 7, 8 and 9,** just forget whatever you had planned to do at home and come with them. This gala farm show will be held again at Cornell University's Teaching and Research Center, southeast of Dryden, New York, and there will be more than ever this year to interest women guests!

Why more than ever this year? Because both Farm Bureau and the Grange will have tents at Empire Farm Days to offer a continuous program of demonstrations and events from mid-morning through the afternoon. The two organizations have worked together to provide a varied, interesting and enjoyable schedule for the three days.

Mrs. Jean Shwartz of Earlville, N. Y., tells me the Farm Bureau program will concentrate on **Foods, Crafts and Ideas.** You will learn new ways to help meet the rising cost of food, and there will be many give-away pamphlets for you to take with you and use at home.

Mrs. Vivian Wood will be back to repeat her popular **"Tin Painting"** demonstration. Also, Professor John Alden Haight from the N.Y.S. Agricultural and Technical Institute at Morrisville will again be on the program. His topic this year will be **"Garden Planning,"** with ideas for both vegetable and flower gardening.

In charge of planning the Grange tent has been Mrs. Lizzie Houck of Dundee, N. Y. Here are a few events resulting from that planning.

Simplicity Patterns will present a style show each afternoon, and Mrs. Shwartz asked me to say there will be no program in the Farm Bureau tent during the style shows. Also, a movie put out by National Safety Council will be shown each day.

Mrs. Helen O'Brien, Home Economist and Consumer Education Specialist for Taylor Wine Company, will demonstrate **"Wine Cookery,"** and Dairylea will do **"Milk Snacks and Drinks."** On Wednesday afternoon, a representative from **Eva Gabor Wigs** will make two presentations. Guests can try on wigs and select one of these convenient hairdos if they wish.

In addition to the features mentioned, there will be many others of interest and value at both the Farm Bureau and Grange tents. Come to Empire Farm Days on August 7, 8 and 9. *Augusta Chapman, Home Editor.*

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Flowers are fashion's favorite accents! Now, crochet 22 exquisite flower-bright fashions — baby gifts, afghans, scarves, cloths, spreads and more with our new **Easy Art of Flower Crochet Book.** They're all beginner-easy, fun to make, sure to win compliments from friends and family. Complete directions are included right inside this remarkable book.

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Northeast Living

Do you have . . . . .

A sugar bowl in "Somerset" pattern, Noritake China? **Mrs. Mary Craig, R. D. 2, Freeville, N. Y. 13068,** would like one to complete her tea set.

A recipe for "Hoxel pie"? **Mrs. Montsena Gray, 14840 Grant Lane, Leisure City, Fla. 33030,** says her grandmother was of Dutch descent and used to make this pie in the early spring.

A manual for a Singer treadle sewing machine you would sell or loan? This request comes from **Mrs. John E. Decker, P. O. Box 335, Central Valley, N. Y. 10917.**

A copy of "The Destroyers" by E. R. Eastman you would sell to **Mrs. Gerald J. Close, R. D. 1, Dalton, N. Y. 14836?**

Were you born in 1899? **Mrs. Amy T. Murphy, 30 Harrison Ave., Trenton, N. J. 08610,** is a shut-in and would like to hear from people born the same year that she was.

A recipe for "George Washington Cake"? **Mrs. J. Edward Drews, R. D. 1, Robbinsville, N. J. 08691,** describes it as a molasses-type cake batter, baked in a pie shell and topped with chocolate icing.

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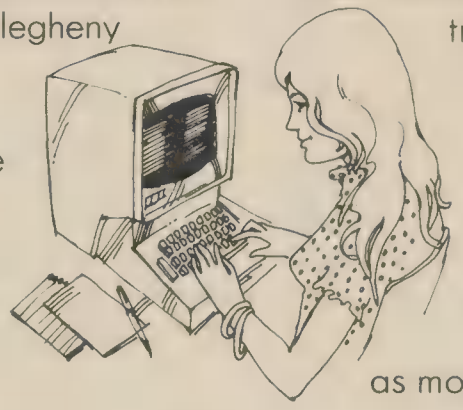
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It's Freezing Time!

by Charlotte Bruce



Photo: Ball Corporation

More people than ever are freezing food this summer to help with the winter's bills. Even tomatoes can be frozen if you have room in your freezer for them. Also, try freezing ¼-inch slices of green tomatoes, placing a piece of freezer wrap between each slice. No scalding is necessary.

The telephone rings, and it's a neighbor saying she has a lot of some foodstuff left over and can she freeze it? "It" might be anything from cheesecake to ham. It's tempting to be flip and say, "Of course — you can freeze anything," and then point out that it's possible to freeze even the radiator of your car, but the results of such action may leave something to be desired.

It is also tempting to point out that reliable printed information on these matters is available from almost every state's Extension Service. But I try to be good natured and answer each question as it comes, relying on tested information and experience.

If you make use of a freezer, this is a busy time of year. High food prices have added more people to the ranks of freezers and canners. If you are new at this task (especially at canning), by all means get reliable information on how to proceed. There is too much work and expense involved to do a poor job and not have good results. Canning, particularly, can be very dangerous if proper procedures are not followed. A call to your Extension Home Economist is then the first step in food preservation.

Freeze Peppers

Besides the usual beans, peas, corn, etc., that we freeze in quantities, there are some other items that can be frozen during the producing season, when they are at highest quality and lowest price. I'd like to suggest a few of these, plus some methods of packaging for you to try.

Green peppers are at their best in late summer, whether home produced or store bought. They are also cheapest at this time. After they are frozen, they are usually used in cooked dishes, though you may want to try them in salads.

For freezing, select well formed, crisp, firm peppers. Wash them well, remove seeds and stems. They can be left in halves (for stuffing later), sliced or diced. If they are to be used raw, they do not need any heat treatment before packaging. Packed raw, they will require more space.

If they are to be used in cooked dishes, dice and scald them for 2 minutes in boiling water. Allow lots of boiling water (1 gallon to 3 peppers), as it must come back to a rolling boil quickly after the food is added. The time is counted from the moment the food is put into the boiling water.

The peppers are best packaged in small quantities, the amount to be determined by what is most likely to be called for in recipes in which they will be used. I do ⅓-cup lots packed in tiny plastic bags, and then many of these little bags can be put into a larger box to protect the packet and keep like items together in the freezer. Peppers can be tray packed, as directed in the case of onions following.

Onions, Too

After the onion prices this past winter and spring, you might be inclined to try freezing them. Fully mature onions are simply peeled, washed and chopped. No heat treatment is required.

Both peppers and onions are good candidates for the tray-pack method of freezing. To do this, you simply spread the prepared vegetables in a single layer on a tray or cookie sheet and place it in the freezer. When it is frozen, remove the vegetables from the tray and package.

The advantage of this method is that any amount of food can be removed from the container for use. This is particularly good for herbs and "seasoning" vegetables. Chopped chives can also be frozen in the same manner as onions.

Another idea to consider is freezing separate small packets of vegetables for use in combination dishes or soups. If you have a corn pudding recipe that takes a certain amount of corn, why not freeze in that quantity and mark it as such? A dabble left over of any product that doesn't fit a recipe can be a nuisance.

The small quantities of vegetables packaged for ultimate use in the soup kettle might be those you sort out as being a bit too mature for vegetable cookery. This is the way I handle green beans, for instance. Sorting the beans means they all get cooked in the same amount of time. The more mature ones will have plenty of time in the soup-cooking process.

If your garden produces several compatible vegetables at the same time, they can be frozen together, but you must observe the rules for preparing each individual vegetable. Succotash, for instance, would mean preparing corn and beans separately and mixing before packaging. If the corn and beans aren't ready at the same time, you'll have to mix them at preparation time.

One combination you might enjoy is whole kernel corn and bits of green and/or red pepper. A few packages with this variation might relieve the winter vegetable monotony.

Those Good Blueberries!

Blueberries are one of the fruits that can be frozen in a variety of ways. They can be frozen without sugar (dry pack), with sugar or syrup and also tray packed. Unless you are fortunate enough to have either wild or tame blueberries of your own, they are fairly expensive; recipes using only a few blueberries but giving a large amount of flavor are advantageous.

I package them in one-cup packets, which is the amount of berries required in my muffin recipe. For the blueberry coffee cake I make, two cups are required, so two packets are opened.

You may wish to freeze fruit and vegetable juices. Usually these are canned, but if you have only a small amount to handle at a time and plenty of freezer space, you can make fast work of "putting by" the juice in the freezer.

Prepare in the usual way, (If fruit juice is to be converted to jelly, do not add sugar before freezing.), but remember in packaging that one inch of headspace must be allowed, as the juice expands upon freezing.

Remember too that if you freeze in ordinary glass jars, they should not be used in canning later; they will have lost their temper and be vulnerable to breakage. Keep these separate from your canning jars. Dual-purpose jars are available, and these have no shoulders and are tapered, so frozen food can be easily removed.

Small amounts of lemon juice can be frozen in ice cube trays and then stored in plastic bags. You may well ask why anyone would want to freeze lemon juice, but sometimes we buy more lemons than we can use, and it's better to freeze the juice than to let the lemons wither.

Fruit Spreads

Frozen uncooked fruit spreads have become popular in the past few years. You'll notice I do not call them jams and jellies because they differ from these traditional products both in method of preparation and the final product.

The "Handbook for Freezing Foods," Cornell Extension Bulletin #1179, has this to say about them:

Uncooked fruit spread for freezing may be made from blackberries, blueberries, raspberries, strawberries and peaches. The moisture content of these spreads is higher and the sugar content lower than that of a standard jam or jelly.

These jam-like spreads ferment or mold if stored at room temperature. Store them in the refrigerator for immediate use or in the freezer for longer storage. For directions for making uncooked spreads, use the recipe in commercial pectin packages or call your County Cooperative Extension home economist.

Do not be surprised if one batch of any given kind of fruit spread is different in consistency from another. The amount of natural sugar occuring in the fruit is a determining factor, so ripeness of the fruit makes a difference in final consistency.

A Good Casserole to Freeze

With tomatoes, eggplants, peppers, etc., available, you might want to do a few casseroles for the freezer. It is recommended that casseroles not be kept in the freezer longer than a month. If you know you have entertaining to do, it's good planning to do the casseroles way ahead; eat one the day you prepare them and freeze the rest.

This recipe for Moussaka is one people seem to enjoy, even if they think they don't like eggplant. The casserole freezes well, or you might saute the eggplant slices and pack them with two pieces of waxed paper between each slice and prepare the casserole months from now. There are many versions of Moussaka; each country in the Mediterranean seems to have one all its own. Call this one the Upstate New York adaptation!

MOUSSAKA

2 or 3 medium eggplants
¼ cup melted butter, margarine or cooking oil
4 tablespoons chopped onion
1 lb. ground lamb or beef
15 ozs. tomato sauce
½ teaspoon salt
Few grains pepper
¼ teaspoon nutmeg
1 bouillon cube
½ cup water
2 tablespoons flour
2 tablespoons butter or margarine
1 cup milk
2 eggs
1 cup dry bread crumbs
1 cup grated Parmesan cheese
2 tablespoons butter

Peel eggplant and slice lengthwise

(Continued on page 53)

the clothes line

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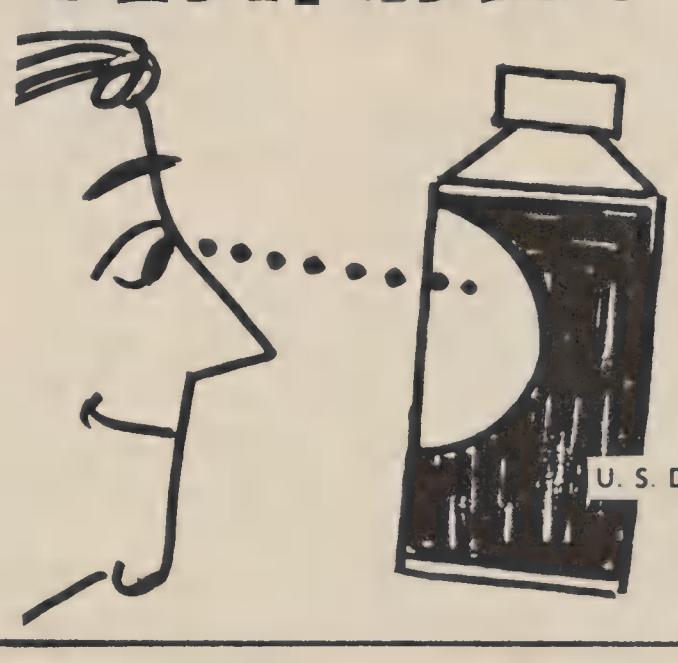
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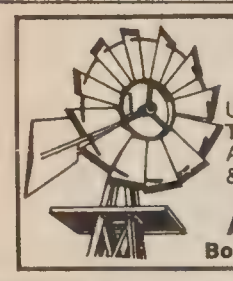
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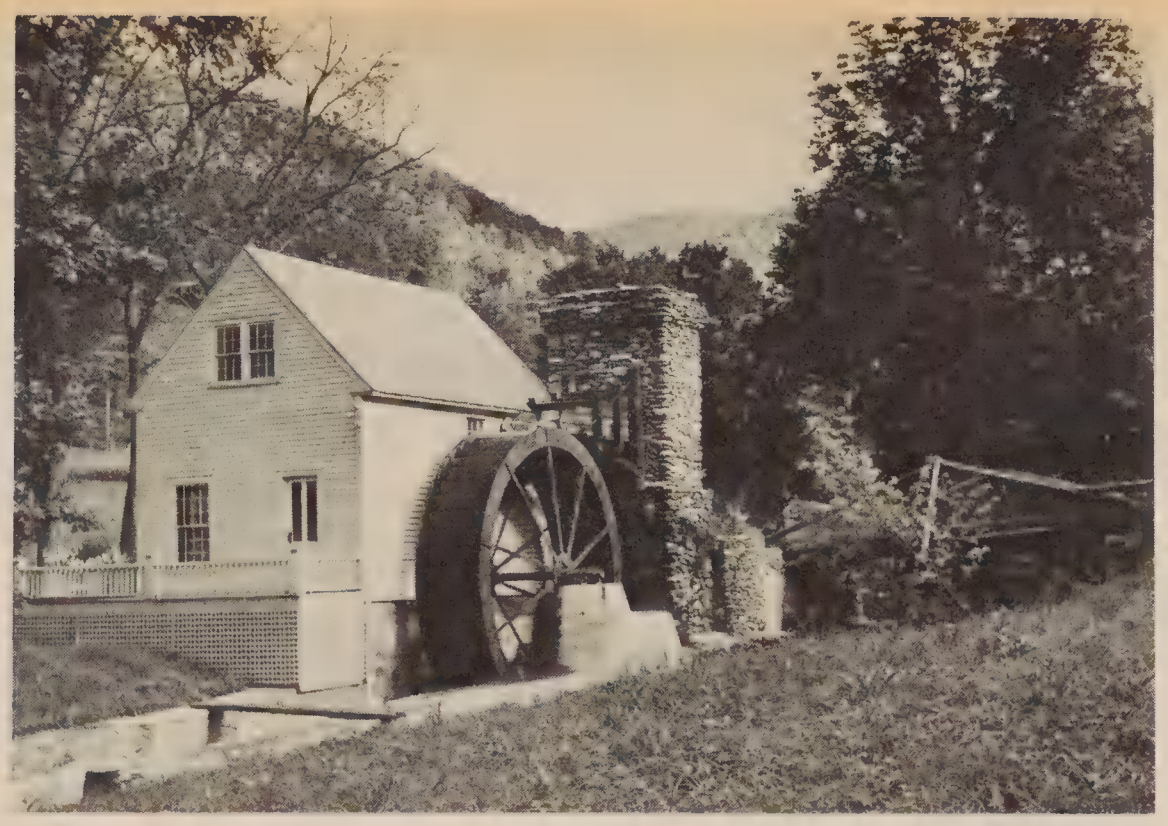
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Northeast Living

We travel through the colorful Berkshire Mountains of Massachusetts and stop at **Old Sturbridge Village.** Here we'll explore the 36 original buildings moved to Sturbridge from many sections of New England and enjoy lunch at Tavern-on-the-Green.

Our tour of **Cape Cod** will include the interesting villages of Falmouth, Hyannisport, Chatham, Barnstable and Sandwich, as well as Cape Cod National Seashore. At **Plymouth,** we'll see Mayflower II, Plymouth Rock, the Plymouth Wax Museum and Plimoth Plantation where there are replicas of typical early Pilgrim dwellings.

Boston is the next highlight of our trip. Dinner is intentionally omitted one of the nights we're here, so you can have your choice of Boston's many fine restaurants. Our sightseeing trip around the city will cover all its well known and historic sites, including Old Ironsides and a visit to Harvard University to see the famous collection of glass flowers.

We go on to **Lexington** and **Concord** where the "shot heard round the world" was fired. Luncheon at Longfellow's Wayside Inn, the country's oldest operating inn, is an enjoyable experience.

Our tour continues northward to Cape Ann and then to Portland, Maine. En route we stop at **Salem** to see the Witch House and Nathaniel Hawthorne's House of the Seven Gables. We have lunch in Rockport and stroll around this quaint town with its "arty" atmosphere.

We drive through an outstanding resort section of the "Pine Tree State," passing Lake Sebago which covers 46 square miles. Crossing the New Hampshire border, we find ourselves in the **White Mountains,** one of the Northeast's most scenic areas. Mt. Washington and other peaks in the Presidential Range loom above us, and everywhere is the ever-changing colors of the foliage. Probably nowhere in the world is autumn foliage more beautiful than in New Hampshire and Vermont!

At North Conway, we ride to the top of Cranmore Mountain on the Skimobile, then drive through Pinkham Notch and visit the lovely Shelburne Birches a few miles from Gorham. In Franconia Notch, we will see the famous stone profile, Old Man of the Mountains.

In **Vermont,** we visit the Maple Grove Museum at St. Johnsbury and the huge granite quarry at Barre, also the capital city of Montpelier and the world's largest marble display at Proctor. Here again, the Green Mountains are a riot of autumn color, and each turn of the road presents a scene to rival all others.

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Bermuda Cruise and Hawaii

There's still room for you to join our **Bermuda Cruise** aboard the new Cunard Ambassador from **September 1 to 8.** The ship will be our hotel while we shop and sightsee in beautiful Bermuda. A planned tour of the island will take us to Hamilton, St. George and many other places. There are dozens of additional things to do, depending on your own interests. For a delightful change of pace, come along on this short cruise-vacation.

And don't forget our **Aloha Week Holiday in Hawaii** from **October 13 to 25!** We'll visit the four main islands — Hawaii, Maui, Oahu and Kauii — and be in Waikiki for the colorful Aloha Week activities. This is the most exciting time of year to be in Hawaii! Make your reservation soon.

1973 Reunion Weekend

This year's **Get Acquainted and Reunion Mixer** will be held **October 19-21** at the famed Otesaga in Cooperstown, New York. This resort hotel is known throughout the east for its hospitality, personal service, comfortable accommodations and delicious food. It's the ideal spot for our weekend get-together.

There are many interesting places to visit in Cooperstown, among them the National Baseball Museum and Hall of Fame, Farmers Museum and Fenimore House. And, of course, there will be travel films, slide presentations, prizes from around the world, good fellowship, and you'll be the first to learn about the program of tours and cruises Travel Service Bureau and AMERICAN AGRICULTURIST have planned for 1974. We'll look for you at the Otesaga.

Gordon Conklin, Editor
Box 370-T
Ithaca, New York 14850

Please send me without obligation on my part, the following tour itineraries:

Fall Hawaiian Tour _____ Bermuda Cruise _____

Fall Foliage Tour _____ Reunion Weekend _____

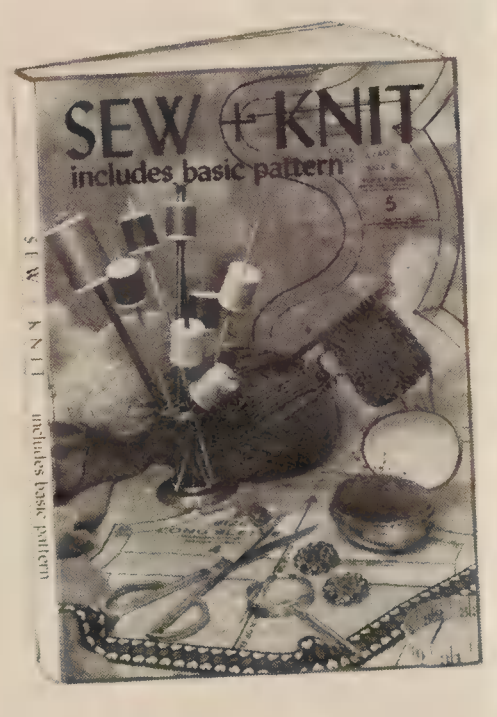
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With a Hi Ho,

Come to the Fair!

Each year thousands of people travel to Syracuse for the annual New York State Fair. For you women fairgoers, the Art and Home Center is the place to find dozens of demonstrations and exhibits to please you, no matter what your interests. Here are brief descriptions of just a few that are offered in the Art and Home Center.

The state's best cooks will demonstrate "Cooking with Luv" in the **Culinary Arts Competition.** Among the entry categories are Bake-In, Vegetable Medley, Entertaining with Ease, Melting Pot, Tried and True, Fruit Delights and Pride and Joy. The first day will be reserved for entrants up to and including 18 years of age; for Senior Citizens, there will be one class of judging each day.

In the **Creative Arts Competition,** prize-winning objects will be on display — paintings, sculpture, ceramics, rugs and wall hangings, metal and wood work, weaving, knitting and crocheting, quilting, needlepoint, refinished furniture, and others. Also, 12 special arts and crafts demonstrations will be featured daily, with the products on sale at the "Craft Mart."

Demonstration Kitchen

Why is it that when there's a party the guests always seem to congregate in the kitchen? We think it's because the kitchen has always been a source of warmth and friendship . . . a place where you are comfortable. This is certainly true at the Art and Home Center; the demonstration kitchen is one of the most popular gathering spots, and "**73 Food Demonstration Kitchen — An Entertaining Place,**" has been chosen the subject for this year.

Many well known authorities on food and entertaining will show you what your kitchen has to offer in making any get-together a memorable occasion. Some of the programs to be presented are — Omelet Party at Home, School of Easy Knox, Tuna for Today's Lifestyle, Bread-making — a Returning Art, Teen Party, Fondue Party with an International Flavor and Thoughts for the Hostess. There will be many others, offering practical help on a variety of subjects.

Women's Day

Following tradition, Women's Day will be Wednesday, August 29, and the question to be tackled in the morning program is "Will the Family Unit Survive Our Lifestyles?" The luncheon schedule will include a speaker, musical entertainment and a fashion show. Community Service Awards will be presented following lunch.

Be sure to make your reservations for the luncheon by Monday, August 20. The cost will be $3.75 including tax and tip.

Other Features

Two new exhibits in the Center this year will be "Space Food Demonstration," sponsored by the National Aeronautics and Space Agency, and the Corning Glass Museum's "Story of a Goblet." This tells how the exquisite hand-made Steuben Crystal is formed.

For younger fairgoers, the Art and Home Center will feature a daily 4-H fashion show, and the annual spelling bee will be held on opening day, August 28. Once again, the Auburn Children's Theatre will entertain youngsters (and adults too!) with a variety of plays each day. Also, college drama students will present the musical "Charlie Brown," once each day.

"**It's Your Money**" will be the Cooperative Extension's topic, and suggestions will be made for getting the best value for your dollar. Vital information will also be available on consumer topics and issues.

Last year the **Handicap Kitchen** was such a success that it will again be presented for those interested in making life easier for women working from a wheelchair. There will also be a display of clothing for the handicapped, as well as clothes that can be made by a physically-handicapped mother.

Start making plans right now to attend New York State's Super Fair. Your time will be both enjoyably and profitably spent!



Five demonstrations are held each day in the Art & Home Center's Food Demonstration Kitchen. This picture was taken at last year's Fair, when "Soul Food Cookery" was the topic.

Books for Northeast Living

We have arranged with the publishers to supply directly to our readers, postpaid, any of the following books at the prices listed. Please allow three weeks for delivery.

Title — Author	Delivered Price
OLD-TIME AGRICULTURE IN THE ADS: Karolevitz	$ 2.00
AGRICULTURAL ENGINEERING—A DICTIONARY AND HANDBOOK: Farrall & Albrecht	11.25
ANIMAL SANITATION AND DISEASE CONTROL: R. R. Dykstra	11.65
ANIMAL SCIENCE: M. E. Ensminger (1969 edition)	19.75
APPROVED PRACTICES IN BEAUTIFYING THE HOME GROUNDS: N. K. Hoover	6.25
APPROVED PRACTICES IN CROP PRODUCTION: Brickbauer & Mortenson	8.00
APPROVED PRACTICES IN DAIRYING: E. M. Juergenson & W. P. Mortenson	7.00
APPROVED PRACTICES IN FARM MANAGEMENT: I. F. Hall & W. P. Mortenson	6.25
APPROVED PRACTICES IN FEEDS AND FEEDING: D. W. Cassard & E. M. Juergenson	8.50
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HORSES AND HORSEMANSHIP: M. E. Ensminger	15.00
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INTRODUCTION TO GRAIN MARKETING: W. J. Wills	9.25
INTRODUCTORY LABORATORY ANIMAL SCIENCE: L. R. Arrington	11.50
LIVESTOCK JUDGING AND EVALUATION: R. E. Hunsley & W. M. Beeson	9.75
MARKETING OF LIVESTOCK AND MEAT, THE: S. H. Fowler	11.00
MEAT WE EAT, THE: P. T. Ziegler	11.25
MECHANICS IN AGRICULTURE: L. J. Phipps	11.25
MODERN MARKETING OF FARM PRODUCTS: W. P. Mortenson	8.50
OUR SOILS AND THEIR MANAGEMENT: R. L. Donahue	11.00
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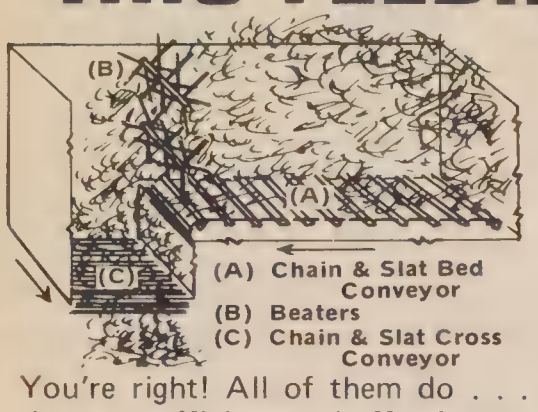
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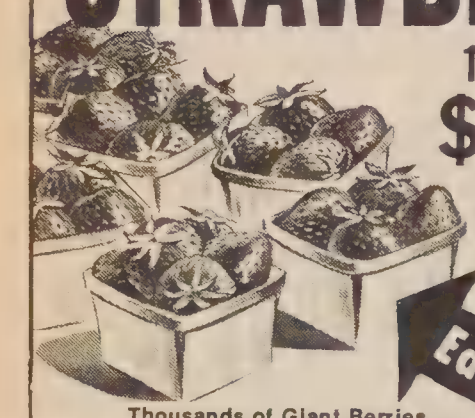
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AGWAY See your local Agway Store or Representative soon.

GARDEN TALK

by George and Katy Abraham

Beans are one of the fastest producing crops you can grow. They develop and produce a crop in 50 days or so and can be planted throughout the summer (through early August) with good results. They are a good replacement for lettuce, radishes, cabbage and other early crops. Beans are a good substitute for meat, since they contain protein, vitamins and minerals.

The edible-podded garden beans called snap or green beans are the most commonly grown. Then there's the navy, red kidney, pinto and lima; all originated on the American continents. The American Indians made common use of beans and planted climbing types along with corn. Beans have come a long way — only a few years ago the stringless, tender-podded varieties we know today were developed.

Mealy Bugs

These are soft-bodied pests covered with powdery wax resembling cotton. Look for them in the axils of leaves. **Control**: Swab a match stick in alcohol and put a couple drops on the cottony masses. Do not get any on the plant itself. Some people use tweezers to remove the cottony patches.

Another pest to "bug" you is the fungus gnat. Young, slender, legless maggots hatch from eggs laid in the soil by black flies you often see buzzing around the plants.

Control: Take some cigar or cigarette butts and mash or soak them in water. Pour the liquid around the base of your plants and see what a good job it does.

Slugs and Snails

So your tomatoes have holes in them and you can't see any bugs bothering them? That means snails are working your plants over, and they do it at night while you're sleeping. During the day they seek shelter in crevices in the ground, under boxes, stones and other covers.

When it comes to controlling these night pests, it's not easy. "Stretched" out, some are 6 to 8 inches long, and they can do a lot of damage in a single evening. The reason? Snails have 8,000 "teeth" and can put them all to work at once. Here are a few tricks you can try for licking snails:

1. Go out at night with a flashlight and a salt shaker. Search your plants carefully and either handpick the snails or shake a little salt on them. Salt finishes them off quickly!

2. During the day, look under stones, boards, etc., where they hide. Some gardeners put a grapefruit or orange rind (hollow side down) between the rows. Snails and slugs have a sweet tooth for citrus skins and will hide under them in daylight hours.

3. Place shallow pans of stale beer in between the rows. Snails wallow in it, get tipsy and drown.

4. Try using ordinary alum as a spray. Use ¼ or ½ pound of alum per gallon of water. Dissolve it in hot water and spray on slug-infested areas at night. Both the ground and plants should be sprayed. It's necessary to hit the slugs with the solution and also the ground and plants.

Repeat the treatment every three weeks in order to get the adults missed at the first treatment and to hit the young which have emerged from eggs previously deposited. We're not sold on the alum treatment; hand-picking at night has worked best for us.

Mowing Lawn Is Healthy

Don't grumble the next time your wife asks you to mow the lawn. It's good for you! Walking behind the lawn mower is as good as any exercise, and better than most, to improve your appearance, heart and lungs. This is especially true if you're more than 40 years of age, according to a study done at Wake Forest University.

Studies involving healthy but sedentary males between ages of 40 and 56 show that walking improves body proportions more quickly than jogging. Also, walking sends 28 percent more oxygen to your heart. It's the lack of sufficient oxygen that often triggers a heart attack.

Blood pressure is significantly reduced, and pulmonary circulation is increased 15 percent by walking. When you walk behind a lawn mower, the muscles in your feet, calves, thighs, buttocks and abdomen give your heart a big boost in pumping some 72,000 quarts of blood through your system.

Doc and Katy Abraham, who write "Garden Talk" columns in AMERICAN AGRICULTURIST, have been named America's leading horticultural journalists by the Men's Garden Club of America. Doc and Katy were given the top award for outstanding contributions in the horticultural field through American Agriculturist, newspapers, radio and television. Doc and Katy have been writing for AA since 1969.

The Gold Award recognizes Doc and Katy for their work with young people in schools, as well as with many of America's 80 million adults who follow their advice. This is the 6th national honor to come to the Abrahams.

Doc and Katy are authors of five books on horticulture and have appeared on WHAM radio station continuously for 24 years. They also have their own TV program over WOKR, Channel 13, Rochester. The Abrahams have conducted a commercial greenhouse and landscape business for more than a quarter of a century. — *A.C.*

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WANT TO GET in the beef cattle field and make profit? If you do, remember Shorthorns —Polled Shorthorns go to market 30 to 40 days sooner than other breeds. Calves weigh 60-80 lbs. more at weaning. Get the facts. Free. Write Department EB, American Shorthorn Association, 8288 Hascall St., Omaha, Nebraska 68124.

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Publishing and closing dates

September Issue ..... **Closes August 1** **October Issue** .... **Closes September 1** **November Issue** ..... **Closes October 1**

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MOHAWK VALLEY - Dairy farms in and around the Mohawk Valley. One of the largest selections of farms in this Mohawk Valley area. All sizes, all prices. When farm hunting contact John L. Subik, Realtor, 27 West Main St., Johnstown, New York 12095, or call 518/-762-4942 or 518/762-4451.

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FARMS—FINGER LAKES AREA — All types and size farms. Retirement homes — hunting land. Lakeshore properties. H. M. Stocking, Broker, Dundee, New York 14837.

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160 ACRE FARM, 120 tillable. Victorian 2 family brick home. 40 stanchion barn. 12 young stock, 2 tractors, equipment - $78,000. Roadside farm market, new cider mill, air conditioned apple storage. 6 room home new inside. 75 hiway acres (60 acre orchard). 1973 crop, tractor, dozer, equipment included. $135,000. 540 acre beef farm, 400 tillable. Two homes, beef barn, 3 silos, unloaders, $200,000. Wimple, Realtors, Sloansville, N.Y. 12160. 518/875-6355.

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FARMS FOR SALE: Dairy farms stocked and equipped, acreages as follows: 500 acres, 306 acres, 300 acres, 126 acres, several bare farms available. Located St. Lawrence Valley region - WJ or FL Murray-Licensed Real Estate Salesmen, PO Box 8, Potsdam, N.Y. - phone 315/265-3740 (call collect).

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WASHINGTON COUNTY FARMS for sale. Rupert Realty, Rupert, Vermont 05768. 802/-645-0195.

202 ACRES, 130 tillable, 76 tie stalls, new barn, heifer barn, calf barn, lots of silage capacity, big house. Priced to sell $75,000. Call George VanderWoude 607/849-3907 for appointment, or write: The Cirba Company, Realtors, 680 Main St., Johnson City, N.Y. 13790.

FARMS FOR SALE

NEW LISTINGS - 199 acre dairy farm, 36'x 144' barn, two concrete silos, good seven-room home, secluded location on good road, priced at $87,000. 460 acres, 275 tillable, flat alfalfa land, 35'x187' barn, two Harvestore silos, seven-room home, mobile home, an extra good productive farm for dairy, beef or crops. Priced at $225,000. Owner will finance. Call Richard E. Posson, Lic. R. E. Broker, R.D. #3, Norwich, N.Y. 13815. 607/334-9727.

TWO CENTRAL NEW YORK dairy farms as follows: 334 acre valley (110 acres river flat) farm with 63 stanchions, $72,000. 199 acres with 36 stanchions and 27 free stalls, $83,000. For complete details on these and other choice farms call Art Allen, salesman and farm specialist, Yaman Real Estate, 607/753-9644 - or evenings for appointment only, 607/863-9353.

HEART OF DAIRY INDUSTRIES - Farms of all sizes, convention and free stall, bare and equipped, financing arranged to fit your needs. Do you need a change? Call or write Farm Specialist Realty, Inc., 1116 Arsenal St., Watertown, N.Y. 13601. Phone 315/782-2270. Now!

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200 TILLABLE ACRES, concrete silo, milking 30, new machinery, seven room home, stocked and equipped $83,000. 170 tillable acres, seventy milkers, cleaner, transfer station, full machinery, good home, 94 head, $115,000. 164 acre showpiece, Registered Holsteins, immaculate Georgian Colonial home, beautiful buildings, alfalfa and corn, stocked and equipped $121,000. 950 acres, 136 stanchions, much new equipment, stocked and equipped $220,000. 170 tillable acres, Registered Holsteins with herd average over 16,500, good barn, lovely home, overlooking lake, stocked and equipped $181,-000. 283 acres, 78 stanchions, pipeline, 60+ milkers, three silos, well drained, full stock and equipment $145,000. Several bare farms including 240 tillable acres, barn ready to milk 53, four bedroom home, $55,000. 165 tillable acres, 35 milker operation, complete for $65,000. For dairy operations in Northern New York contact Brisson Real Estate, RD #2, Massena, N.Y. 13662. 315/769-9387 or 315/764-0896.

STOCKED & EQUIPPED - Action-priced 560-acre upstate New York farm with 10 two-year-old heifers and 38 head of young dairy cattle, 2 diesel tractors, baler, haybine, other farm machinery. Owner reports 100 head of dairy cattle can be run here. 265 acres tillable, 240 in trefoil, clover and mixed hay, some hardwood timber plus sugar bush, 2-mile frontage on picturesque creek, spring, possible pond sites, well. Recently remodeled 9-room home has bath. 40x120 dairy barn, 72 stanchions, bulk feed bin, milkhouse, new vacuum line, 500 gal. bulk tank, 2 silos, other buildings. Over 2½ miles of hardtop road frontage. Only $95,000 complete, liberal owner financing. Free - big 256-page Catalog! Describes and pictures hundreds of farms, ranches, town and country homes, businesses coast to coast! Specify type property and location preferred. United Farm Agency, 501-AA Fifth Ave., New York, N.Y. 10017. Phone 212/687-2623.

Busy Dairy Farm

Owner reports gross of $25,000.00 from sale of milk, calves & beef last year. 141 acres, 55 tillable - pond & creek watered. 76 acres pasture, cross fenced est. stock capacity - 60 head. Barn 34x110' Xlnt cond. 43 cow ties, dumping stations, 600 gal. bulk tank, silo and granary. Home 9 rms., 5 bdrms., bath, oil H/A heat. Above for $75,000 or stocked and equipped for $115,000.

STROUT REALTY, Inc.

Box 288, Cincinnatus, NY 13040

(607) 863-2381. Free Local Lists.

FARMS FOR SALE

IDEAL DAIRY FARM-$84,500. Near Lake Ontario. 150 acres, nearly all tillable. Fishing brook, 150' Gambrel roof barn, 53 ties, bulk tank, barn cleaner, milker, 2 silos, unloader. Charming 4 bedroom colonial, stone fireplace. 1½ baths, hot water heat. LaRock Realty, Martville, N.Y. 13111, 315/564-5400.

S10[illegible] - 60 cow show place. 4 bedroom dream house. Good barn. 2 silos. Fertile level land. $11[illegible],000 bare or $145,000 with 54 cows, young stock and machinery. M116 - 460 acres, mostly tillable. Real good large house. Plenty of good barns, sheds, etc. Harvestore silo plus others. Farm now producing roughage and grain for 230 head, could handle more. Sells bare or with Reg. Holstein herd and tremendous set of equipment. $275,000 bare. M[illegible]1 - 400 acres, 250 tillable, good medium size house. Real good 80 cow barn with all equipment and 2 Harvestore silos. Excellent land. This is a real top dairy farm in good farming area. Terms from owner. $225,000 bare. Brandow Real Estate Corp., Stamford, N.[illegible]. 12167. 607/652-3193 or 607/547-8218.

FARMS WANTED

WANTED: DAIRY FARMS bare or stocked. Qualified buyers waiting. Paul Bouman, Salesman. Phone 914/895-2817 or Sheldon Ocko Associates, Inc. Phone 914/374-5611. P.O. Box 178, Route 17 M, New Hampton, New York 10958.

BUYERS WAITING! For good dairy farms within 250 miles of New York City. Bare or stocked. We can finance. Also, interested in recreation land, timber or development land. Make your offer now! Our company also buys direct. Barmann's Realty Sales, Inc., R. D. #[illegible], Middletown, New York. Phone 914-343-11[illegible]8.

WANTED ALL KINDS OF FARMS, vacant land and timber lots. New York and Pennsylvania locations. W. W. Werts, Real Estate, Johnson City, New York 13790.

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WANTED: FARMS, ACREAGE in New England. Top price paid. Send details, price: H. Brower, 20 Wachusett Road, Chestnut Hill, Mass. 02167. Phone 617/969-3461.

WE NEED ALL type farms. We specialize in farm sales and have waiting buyers! Call Richard E. Posson Real Estate, RD #3, Norwich, N.Y. 13815. 607/334-9727.

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WANTED: NON-EXCLUSIVE listings of bargains in farms suitable for raising cattle, horses and children. Please write: Paul Boughton, Farm Broker, 1½ Dolson Ave., Middletown, N.Y. 10940.

YOUNG MARRIED COUPLE wants small operating dairy farm, Penna. or New York. Gary Hoffman, RD #1, Sussex, N.J. 07461. Phone 201/875-6612.

QUALIFIED BUYERS for farms, country homes, tracts land. Connecticut, Massachusetts. Robert Collester, 816 Armory St., Springfield, Mass. 01107. Established 1912.

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QUALITY GRADED HAY & Straw, all kinds shipped or trucked anywhere. Desmond Hay Service, Box #666, Spring Lake, N.J. Tel. (201) 449-1888.

HAY FOR SALE - all grades delivered from central New York. When writing give telephone number or call 518/994-5111. Snyder Petroleum, Inc., PPO Box 227, Fort Plain, N.Y. 13339.

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PROFESSIONAL A.I. TECHNICIAN—Eastern is looking for qualified men who want a challenging agricultural career providing an important and needed service to dairymen in the Northeast. The job offers working out-of-doors with farm people, above average income, liberal benefits, and transportation. Write or call: Eastern A.I. Coop., Inc., Box 518, Ithaca, New York 14850. Phone (607) 272-3660.

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WANTED: LADY who desires position as housekeeper-companion for one nice elderly gentleman. Write to D. E. Ward, Munnsville, N.Y. 13409.

MAN AND WIFE to act as caretaker and housekeeper in Vermont. Live in own modern home adjacent to main property. Caretaker should have operational knowledge mechanical equipment such as grass mowers, small tractor; housekeeper required to perform very light housekeeping including occasional cooking for owner when on premises. Prefer no children or animals. Reply by letter giving references, experience. PO Box 854, Montpelier, Vermont 05602.

CENTRAL NEW YORK DAIRY Operation is looking for a married man with ability to keep farm records and to do light farm work. Excellent wages, house, and other fringe benefits. Send resume and references to Box 369-EH, Ithaca, N.Y. 14850.

SINGLE MAN to work with reg. Polled Herefords and general farm work. Have own bachelor quarters. Must be reliable and sober. Furnish background and references to Herring Creek Farm, Edgartown, Mass. 02539.

REGIONAL SALES MANAGER position available with major midwest based hi-bred seed company. Locate eastern New York State. Must have farm background and/or college ag training. Salary, car, expenses, commission ++. Send resume to Box 369-ED, Ithaca, N.Y. 14850.

MALE - APPRENTICE TRAINER. Train dogs and instruct the blind in their use. Three year apprenticeship program. Permanent position with excellent employee benefits. Starting salary dependent on education and experience. Driver's license required. Write Box 369-EF, Ithaca, N.Y. 14850.

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EXTRACTED NATURAL HONEY - clover, fallflower or buckwheat. 5 lbs. $4.00; three 5's $11.00; six 5's $19.00. Postpaid to 3rd zone. We use stainless steel extractors and tanks. Lang Apiaries, 8448 N.Y. Rt. 77, Gasport, N.Y. 14067.

HONEY: (NEW CROP). New York's finest clover, wildflower and buckwheat. Price lists available. Sold by the ton or pail. Write Howland Apiaries, Berkshire, New York 13736.

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STOP CESSPOOL TROUBLES without pumping. Pumping or emptying a cesspool or septic tank is not actually cleaning it as your filter bed is clogged or the system would not be full. Our cleaner, Sursolvent, dissolves the solids and eats out the muck and slime crustations on the side walls, thereby releasing the water, correcting the fault which caused the system to finally fail. No pumping necessary. Users report years of satisfactory results. Free descriptive literature and prices. Electric Sewer Cleaning Co., Dept. AA, Allston, Mass. 02134.

WATCH AND CLOCK repairing books and tools. Free catalog. North American, Box 77RV, Fox River Grove, Illinois 60021.

QUICK-JOHN—Cleans septic tanks, cesspools, outdoor toilets. Stops odors, backups. Opens drains. 6 premeasured treatments $3.55, 12—$6.40 ppd. Money Back Guarantee. Ryter Co., Madelia 20, Minn.

MISCELLANEOUS

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SILO REPAIRS: Save your silo - old or new, years added. We sandblast and reline silos. Learn more about this at Empire Farm Days. Silo Services Inc., Little Falls, N.Y. 13365. Phone 315/866-3698.

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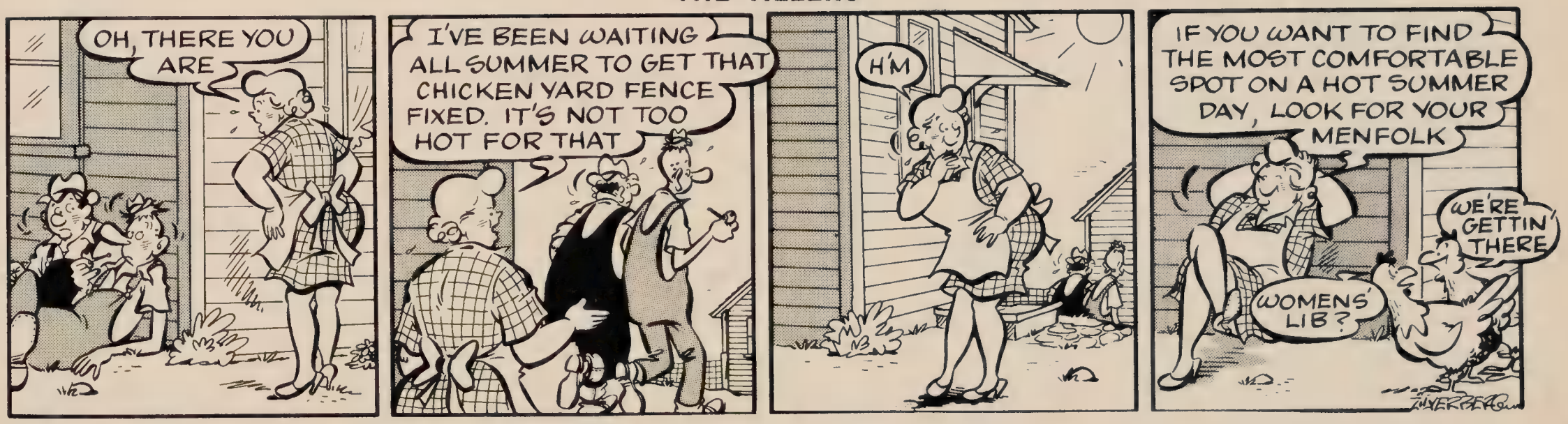
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ATTENTION: The New York State Trapper's Assn. will hold its 32nd annual convention on September 1 & 2, 1973, at Piseco, N.Y. (located off Rt. 8, in the Adirondacks). If you have ever trapped, or now do trap, your attendance is vital to help preserve a sport that is under much pressure. Trapping demonstrations, dealer displays, and guest speakers will be present, and the general business meeting. Membership in NYSTA is $3.00 per year, $1.00 under sixteen. For more information contact: Wm. Leathersich, Jr., Sec-Treas., N.Y.S.T.A., Caledonia, N.Y. 14423.

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WOMENS INTEREST

CUSTOM SPOONS for church, organizational and centennial fund raising. Write Corwill International, Dept. A, P.O. Box 4830, Cedar Rapids, Iowa 52407.

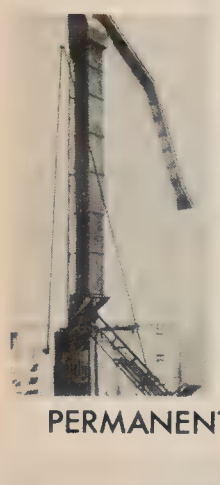
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Freezing . . . . .

(Continued from page 44)

in ¼ inch-thick pieces. Sauté in ¼ cup melted fat in large frying pan until slightly brown. Set aside. In same frying pan, sauté onions and add ground meat and brown. Add tomato sauce, seasonings and bouillon cube dissolved in water. Simmer meat mixture for approximately 20 minutes.

In small saucepan, melt fat and add flour. Gradually add milk and cook over medium heat, stirring constantly, until it boils. Cool slightly; add 2 eggs and beat vigorously.

Assemble the casserole in five layers as follows: place eggplant slices on bottom of casserole, pour meat mixture over the slices and cover with ½ cup crumbs and ½ cup grated Parmesan cheese. Pour white sauce over crumbs and top with remaining crumb mixture. Drizzle melted butter over top of casserole. Bake at 300° F. for about 15 minutes, or until mixture begins to bubble.

No doubt you have put a lot of time and effort into the foods that have gone into your freezer, but think what a pleasure it will be to use them when the bounty of summer is past!

Frozen Assets

Here are some good additions to the kitchen bookshelf.

For the 50 cents that it costs, the "Handbook for Freezing Foods" by Mabel Doremus and Ruth Klippstein is the best buy for information on freezing foods. It is Cornell Extension Bulletin #1179 and is well organized and answers a variety of questions.

To obtain one, send 50 cents with your name and address, including zip code, to **Building 7, Mailing Room, Research Park, Cornell University, Ithaca, New York 14850.**

"Putting Food By" by Ruth Hertzberg, Beatrice Vaughan and Janet Green and published by The Stephen Greene Press, Brattleboro, Vermont 05301, covers a wide variety of subjects in the food preservation area.

In addition to freezing, there is information on canning, pickling, drying, curing and root cellaring. It also includes directions for other tasks, such as making soap. The book is available in both paperback and hard cover.

The **Farm Journal** editors have a helpful book entitled, "Freezing and Canning Cookbook," which includes the basic how-to-do information plus a number of recipes. It, too, is available in both hard cover and paperback editions.

Another worthwhile and beautifully illustrated publication is Ball's brand new "Freezer Book." To get a copy, send 35 cents to **Ball Corporation, Muncie, Ind. 47302.**

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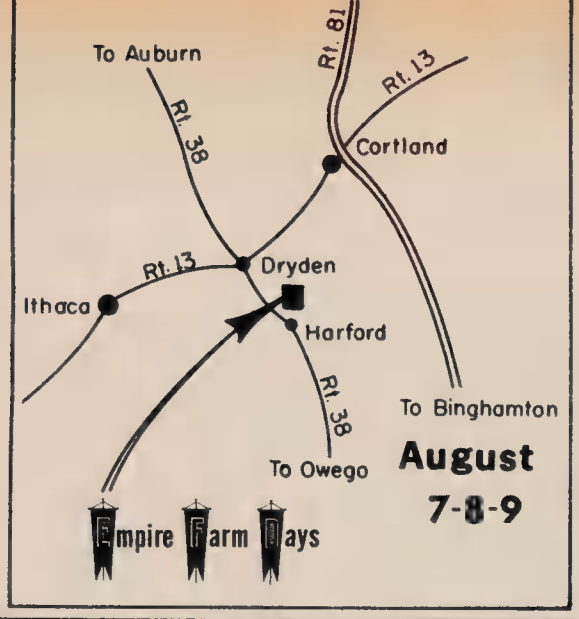
†Competitive data based on manufacturer's published specifications and public domain information available as of 4/17/73.

POWER DIRECTOR and GLEANER are Allis-Chalmers trademarks.

Specifications	Allis-Chalmers 7030 POWER DIRECTOR XX	Deere† 4430 Quad-Range	IHC† 1066 Torque-Amplifier
PTO Horsepower	130.98*	125.88	125.00
Turbocharger	Yes	Yes	Yes
Displacement	426 cu. in.	404 cu. in.	414 cu. in.
Wet Multiple Disc Engine Clutch	Yes	Yes	No
Recommended Engine Oil Change Interval	150 hrs.	100 hrs.	100 hrs.
Inverted Engine Oil Filters	Yes	No	No
Max. Number Forward Speeds	20	16	16
Foot Controlled On-the-Go Shift	Yes	No	No
Axle Diameter	3.620"	3.375"	3.250"
Transmission Brake	Yes	No	No
Planetary Final Drive	Yes	Yes	No
Load-Sensitive Hydraulics	Yes	No	No
Wet Multi-disc Brakes with Bronze Friction Plates	Yes	No	No
Hydraulic Pump Lower Than Oil Level	Yes	No	Yes
Recommended Hydraulic Oil Filter Change Interval	1,000 hrs.	600 hrs.	250 hrs.
Swing Out Batteries	Yes	No	No
Quick Removal Engine Side Sheets	Yes	No	No
Under Platform Fuel Tank	Yes	No	No
PTO returns to brake position when engine is shut off	Yes	Yes	No
Returns to low range automatically when clutch pedal is depressed	Yes	No	No
Draft Arm Float at Lift Link	5.4"	Under 2"	Under 2"
Min. Observed Sound Level in Cab at Max. Power	79.5dB(A)	82.5dB(A)	NA

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Harold Kelly in his farm office at the barn.

DAIRY CONTRAST

It's long been true that varying management systems are successfully used by different farmers. A case in point involves two dairymen in Delaware County, New York . . . one raising no dairy replacements, and the other placing a high priority on doing so.

Harold Kelly and his wife Lorraine . . . along with family help, including a nephew and Harold's father, Howard . . . operate a 112-cow farm near Hamden, New York. They bought the place in 1960, and had the misfortune to lose their barn by fire (cows and all) early in 1971. The new freestall barn (152 × 76 feet) was completed that same year; it has 103 stalls.

Angus

The Kellys breed all cows AI to Angus bulls, and buy all herd replacements . . . mostly as first-calf heifers. "I haven't had very good luck raising heifers," Harold comments. "I'd rather milk cows than feed calves. If we had room for heifers, I'd probably end up filling it with milking cows."

Corn silage and haylage are the major roughages; only 6 to 8 bales of rather poor-quality hay were fed to the entire herd daily during the 1972-1973 winter season. Four pounds per cow per day of grain (24-percent protein) are fed with silages in the feed bunk; additional grain (20-percent protein) in pelleted form is fed in the milking parlor.

"We finished haying on July 1 in the wet year of 1972," Harold comments, "and only one batch of haylage turned brown from weathering." Most haylage goes into a 20 × 70 Harvestore, but some joins corn silage in the two concrete 20 × 60's.

Herringbone

Cows are milked in a double-six herringbone equipped with 12 Sta-Rite milkers having a reflex arm that drops teat cups off automatically and swings them out from under the cow. Harold keeps his own milk production records, and reports a present annual herd average of 12,000 pounds of milk per cow . . . lower than the 16,000 pound herd average posted by the 60-cow herd which burned up on that tragic night when the flaming barn painted a crimson glow against the sky.

Future plans call for a separate building for dry cows . . . presently running with the milking herd. Other than this, Harold reports he'd not change anything about the herd housing if he were to build it again.

Holley Farm

Further north in Delaware County is the farm of Norton and Alta Holley near Bloomville. Their three daughters and one son (Norton, Jr.) have all helped over the years, and their son is now full-time on the farm . . . and owns 12 of the 70 milkers in the herd. In fact, Junior's 12 cows have a DHIC herd average of 18,250 pounds of milk, and Dad's cows weigh in at 17,662 pounds. Barn records show a number of cows boasting production records in excess of 20,000 pounds of milk annually.

The Holleys have been on this 136-acre farm two years, coming here from another farm near Delhi, New York. They rent another 400 acres (135 tillable).

All cattle are registered Holsteins,



Norton Holley and son Norton, Jr. are proud of these three cows, all daughters of the famous Sears bull. All have lifetime milk production records in excess of 100 [illegible] years of age. Type score 89-84-90.

and all are kept in the big tie-stall barn. Heifers are a major cash crop here, and they spend their growing period where they can be observed carefully. Cattle from Carama Farms have gone as far as Spain and Yugoslavia to purchasers. AI studs over the years have included Eastern, ABS, and Curtiss. "About 98 percent of the time, we choose the specific sire," Norton reports.

Whole Milk

Calves get whole milk for two to three months, then first rinsewater from the around-the-barn pipeline up to four months of age. Hay and grain are fed as early as calves will eat them, and corn silage beginning at two months. At four months, calves no longer get any milk.

"The kids have raised the young cattle for years," Norton comments, "and my wife does the grain feeding . . . and supervises hay feeding for the entire herd." Two people milk, using six units.

The milking herd is fed a conventional ration of hay, corn silage, and grain . . . but an unusual twist is the addition of LPS (liquid protein supplement) atop the hay fed the last thing at night. Another practice that's a bit different at Carama Farms is that the gutter cleaner is turned on twice a day (before each milking). "We always milk in a clean barn," Norton comments.

GROWING

Robert Knight operates a dairy farm located at the edge of the city of Keene, New Hampshire. Including 250 acres leased, the operation involves 653 acres. Only recently, he expanded the herd from 40 to 90 milkers . . . 60 percent of which are registered, the rest grades.

Part of the reason for expansion involves the success Knight Farm has been enjoying in selling half-gallons of milk packaged in the milk-processing plant at the farm. A retail self-service outlet at the barn moves some of it (present price 99 cents for a twin-pack of two half-gallons); most of the rest is delivered to stores in the area. The slogan on the milk containers is, "A quality milk from our own herd."

Objective

Bob comments, "The primary objective in my milk marketing is a **quality** product. I figure on grossing $10 per hundredweight, after plant costs, on the milk I'm selling . . . substantially more than if retailing weren't involved. Of course, my costs are higher, too. I'm optimistic about the future of dairying."

Proof of that statement is demonstrated by a recent barn expansion so it is now 270×39 feet. Perforated plastic tubes ventilate the barn . . . involving four power-louvered fans (two on each end of the barn).

Some visiting dairymen are surprised to see the wall paneling on the inside barn walls, but Bob comments, "It's not that much more expensive than some cheaper alternatives . . . and it washes better than they do, besides being attractive to look at." There are six inches of fiberglass insulation in the ceiling, three inches in sidewalls. Each tie stall is floored with a rubber mat, bedded with sawdust.

In Barn

Cows are in the barn except for exercise. "We've gone through a transition over the years," Bob comments, "from pasturing night and day, to pasturing nights only, and finally in the barn practically all the time. Catching cows in heat then becomes a problem . . . so I'm thinking of building a milking parlor, partly to help in detecting heats."

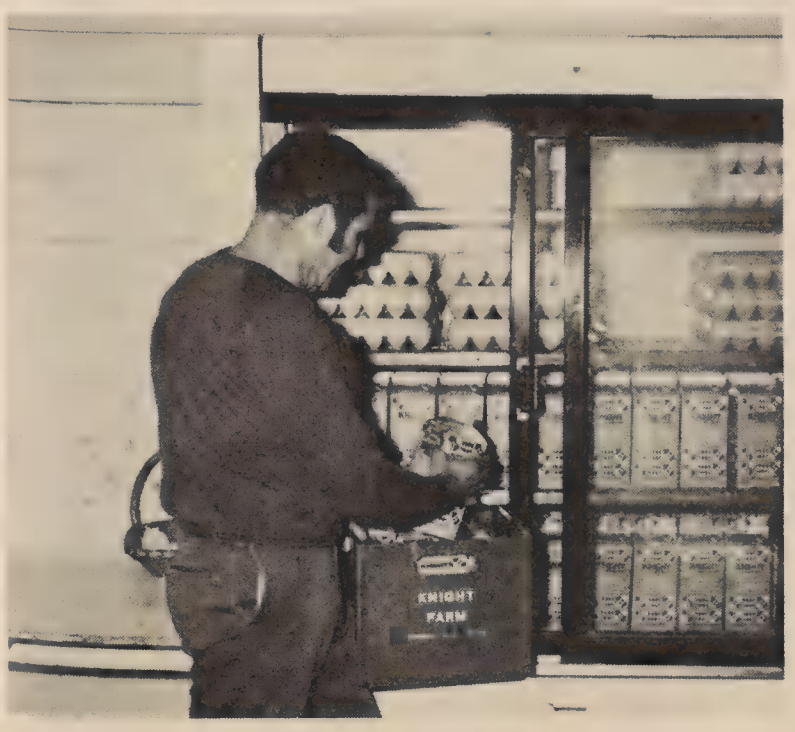
Presently, the Knights use a milk transfer station. As an experiment, they once pumped milk directly from the dumping station through the bottling-plant plate cooler which cooled it in seconds. "The milk tasted flat," Bob reports, "so we now cool it the conventional way in the bulk tank." For best milk taste, by the way, he prefers a butterfat test of 3.6 present.

Adjust

Not all is roses in being a producer-dealer in an area covered by a federal milk marketing order. "If I buy milk from the pool," he comments, "I have to pay the Class I price . . . but if I sell excess milk into the pool, I only receive a Class II price." So he tries to adjust the production levels of his own herd to fit demand . . . not a simple exercise in farm management!

The milking herd gets corn silage as the major roughage (only 18 bales of dry hay per day to 90 cows). Ear corn, alfalfa pellets, protein supplement, salt, and minerals are combined in a farm-owned portable grinder-mixer to provide a grain mix with 16-percent protein.

Heifers are housed in free stalls at a separate structure, fed once a day. — *G.L.C.*

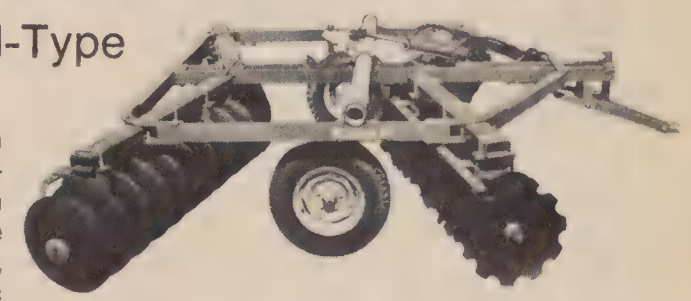


Robert Knight fills the cooler at the self-service farm store. Eggs, bacon, and maple syrup are also sold here.

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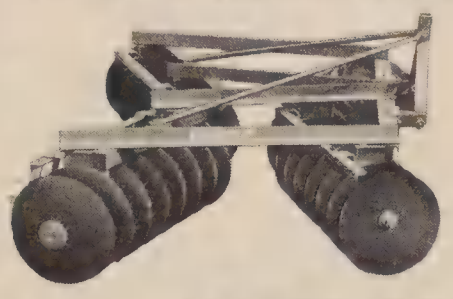
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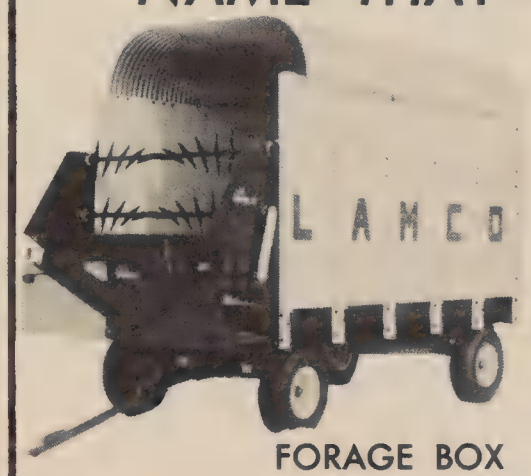
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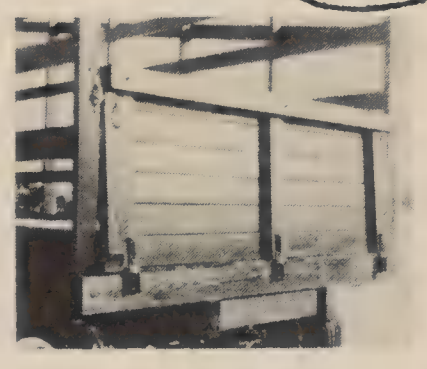
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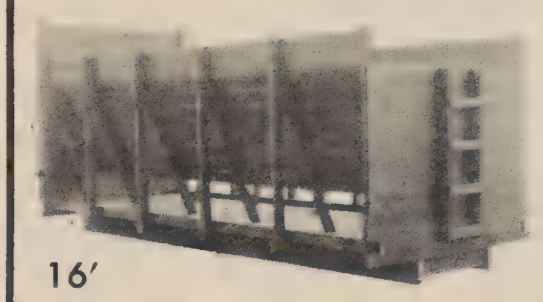
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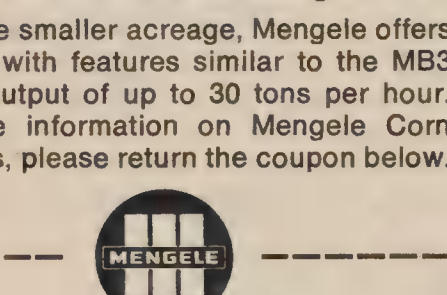
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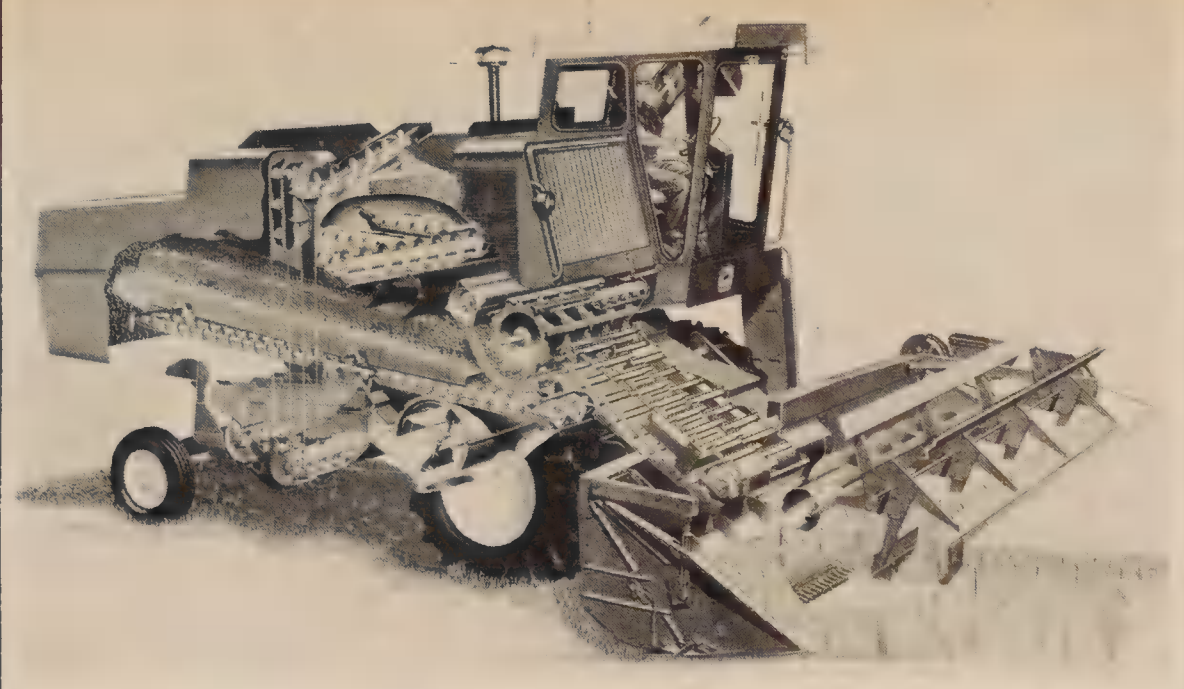
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Fine-tuning a combine

WHEN you find grain behind a combine, you'll be tempted to start making immediate adjustments. Don't do it! "You'll be better off to make a careful examination to determine exactly where the loss is occurring," says John Crow, senior combine service supervisor for John Deere. "Then you can correct for the problem.

"Combine adjustment doesn't have to be complicated or mysterious. It's quite simple if you understand the machine and know what happens, where, and why."

This understanding comes easiest by considering a combine's five basic functions . . . cutting and feeding, threshing, separating, cleaning, and finally, crop handling.

"If a combine is to perform efficiently, each of these functions must be performed in proper relationship to the others. Each must be properly adjusted to effectively process materials delivered to it by the preceding unit," Crow says. "But keep in mind that adjustment is not a once-a-season operation. You should continually check and make small adjustments as crop and weather conditions vary."

Manual

The operator's manual provides basic information on areas of the combine where each of these functions is performed, and it should be reviewed before each harvest season.

First to touch grain is the reel, which has three main adjustments:

– **Reel speed** should be about 1.25 times travel speed; slightly faster in down and lodged crops . . . judge this by watching as you drive. The reel should gently lay grain on the apron as it is cut off. It should not be pulled through standing grain, and must **never** push grain away.

– **Reel height** should be just low enough to catch all the heads. If the reel is too low, heads will hang across it and be carried around. Multiple cuts on stalks indicate that the reel is too high or too slow.

– **Forward position** of the reel is less critical, but it should be properly adjusted. The right setting depends on travel speed: farther forward for faster speed, back for slower speed.

A pickup reel is advantageous in down and lodged grain, though it causes higher losses than a bat reel in standing small grains. An additional adjustment, finger angle, must be made on pickup reels. Fingers should enter the grain in a combing position and lift it onto the apron. Be sure fingers do not hit the cutterbar . . . they may reach an inch or two below cutterbar level.

Next in line is the cutterbar. Obviously, knife sections and guards must be in good shape. The knife must also be properly registered. Check at each end of its stroke, as it may register at dead center or ⅛-inch beyond.

Hold-down clips should hold knife within 1/32-inch of guards. If there is more clearance than that, knock the clips down slightly with a hammer. Wear plates should be moved forward enough to prevent fore-and-aft movement of the knife.

The cutterbar should be level. To check it on any surface, raise it enough to sight on the axle. If one end is low, set it on a block and lower the header while making the adjustment. Check tires for equal pressure.

Auger

"The platform auger is often overlooked," says Crow. "It should be adjusted to match crop conditions."

Fore-and-aft adjustment is determined by crop length; move it farther forward for short crops. Vertical adjustment is determined by crop density; raise it for heavy crops. In both adjustments, see that left and right ends are matched.

Timing of auger fingers is adjustable. This adjustment should also be determined by crop density. Fingers should extend early in heavy crops, late in light crops.

"Threshing is the key to the whole operation," notes Crow. "**Cylinder speed** and **concave clearance** are the two most important adjustments on a combine."

In general, higher cylinder speed

(Continued on page 57)

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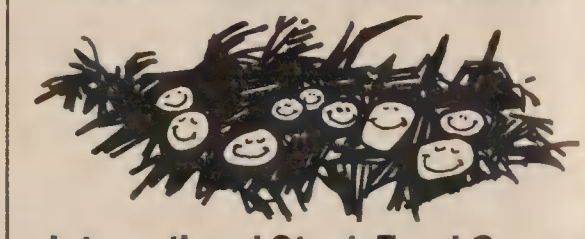
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Combine . . . . .

(Continued from page 56)

and closer concave setting go together. This combination increases severity of threshing, and the opposite decreases it.

In some instances, though, you will want to change only one of these adjustments. If kernel damage is excessive, cylinder speed is probably too high. If you are leaving grain in the heads, try just closing the concave slightly. If volume of material going through the combine increases, use higher cylinder speed and more concave clearance.

Be sure spacing at the rear of the concave is correct. It should generally be about half the front spacing. Also see that clearance is uniform from side to side.

Separating

"The vast majority of separation should occur in the concave area, not the walkers," Crow points out. "Grain drops through the concaves, and straw goes back onto the walkers. If much grain goes to the walkers, part of it will be lost out the back. People often blame the shoe when they find loose grain behind a combine, but there is far more walker loss than shoe loss.

"The best way to check is to pick up a big handful of straw from the walkers and see how much grain is in it. I can't say just how much is too much, but there should be very little."

If rear concave clearance is too wide, it lets grain onto the walkers. Check there first if you have walker losses.

Slow Down

In very heavy crops, you may have to slow down. There is a limit to how much a combine can handle, and separating may be the first function to overload.

On light or medium crops, it helps to use risers on the walkers. Risers retard the rearward movement of straw, providing more time for separation. In heavy crops, risers should be removed to prevent overloading the walkers.

Curtains may also be removed in heavy crops. Their purpose is to stop any loose kernels flying back from the cylinder. In heavy crops, they pack straw and interfere with separation on the front part of walkers. With straw piled high, no loose kernels could fly out the back, so curtains may as well be removed.

Correct machine speed is highly important. A change of only a few rpm can cause walkers and shoe to perform inefficiently. Run the machine at full speed with no load, and check with a hand-held tachometer. Your operator's manual tells which shaft to check and what its speed should be. Never run the engine faster or slower than recommended while harvesting.

"There are really only two adjustments on the cleaning shoe," says Crow. "Opening size (of chaffer and sieve) and air speed are the only things you can change. They must be adjusted together, since opening size affects air speed. Closing the openings causes air to rush through faster (like holding your thumb over the end of a garden hose) so the fan should be slowed down as the chaffer is closed."

The main air blast is directed through the front part of the chaffer. Air speed should be sufficient to lift material and suspend it in air, letting heavy particles rain down. If underblown, material will ride on the chaffer, and grain will slough off the end of the shoe. If overblown, grain will be picked up and blown beyond the end of the shoe.

Chaffer and sieve are adjusted by watching grain in the tank, tailings return, and shoe loss. If you are losing any grain over the shoe, open the chaffer a little. If you are getting trash in the grain tank, close the sieve a little.

If the tailings return is overloaded, you need to close the chaffer or open the sieve. You can tell which is needed by examining the material . . . is there an excess of clean grain or trash? If there are lots of unthreshed heads, reduce concave clearance to do a better job of threshing.

The back section of the chaffer should be opened somewhat more than the rest. This lets unthreshed heads drop through the tailings return.

The fifth function of a combine is the actual movement of the grain through an elevator system to the tank, and through the unloading auger to trucks. The only adjustments here control tension on drive chains, but since these chains have long service life, very little adjustment is required. The operator's manual explains these adjustments fully.

After all adjustments are made, the performance of the combine is in the control of the operator who must be capable of determining the combine's capacity in the crop being harvested, and must be constantly on the alert for any changes which will require further "fine tuning."



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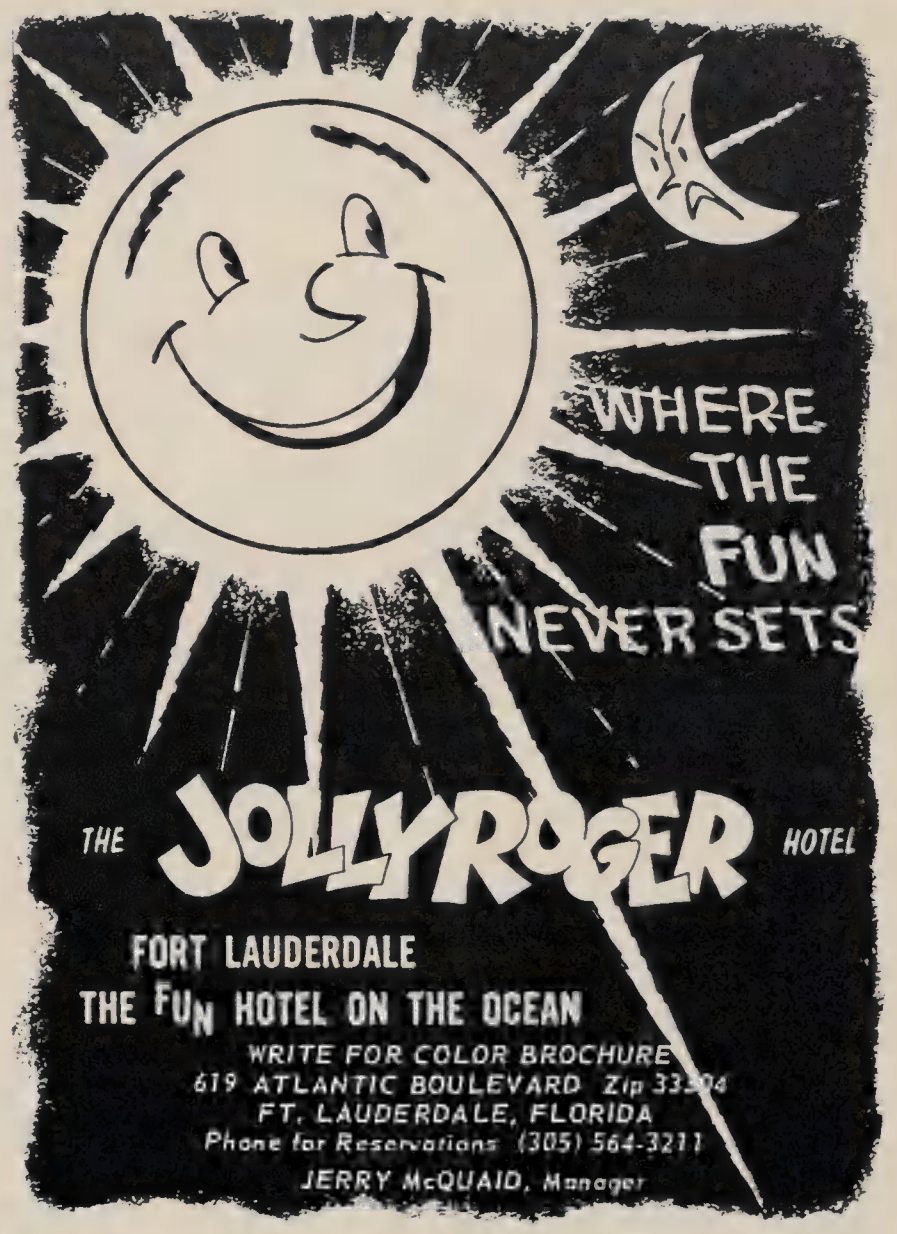
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Dollar Guide

FUEL SHORTAGE on farms should be reported to your county ASCS office ... where corrective procedures already set up by the USDA will be set in motion. If farmers buy gasoline for farm purposes at retail outlets, they should get sales slip for gasoline tax refund.

EASTERN MILK PRODUCERS COOPERATIVE is now an operating cooperative, entitled to the one cent extra per hundredweight paid by the Market Administrator in federal Order #2 to dairy cooperatives with that designation. It joins Dairylea and NEDCO in this category.

LP GAS is used for drying corn at annual rate of 642 million gallons in U.S. Industry spokesmen advise farmers who'll need it this fall to stockpile some in advance because of fuel shortages.

GRAIN STORAGE can be made by converting a used gasoline storage tank with a cutting torch. After publishing picture of such storage, AA has received letters and phone calls from readers concerned with safety.

Use extreme caution when using a torch on such tanks ... steaming them out with a steam jenny before working on them is probably safest.

NATIONAL LAMB & WOOL REPORT is available free at any time of any day by calling 1-800-525-3566. It's about 2 minutes in length, and is updated periodically throughout the day.

EGG PRICES predicted by Poultry Survey Committee for 12 months beginning July 1, 1973 to average 54 cents per dozen.

PRESENT USE ASSESSMENT law is in effect in New Hampshire. Details available from SPACE, Box 757, Concord, New Hampshire 03301.

HOG PRICES likely to remain high rest of '73. No general upturn in production has taken place ... and ceiling prices at retail have dampened any likelihood of production increase.

NO MANURE SPREADING allowed between December 1 and April 15 ... so goes a proposal by Vermont Department of Health. Modification is expected in final regulation, but proposal indicates trend of thinking by regulatory agencies.

FARM REAL ESTATE VALUES in U.S. rose 13 percent during year ending March 1, 1973 ... up a whopping 20 percent in Pennsylvania.

EXTENDED IN-LINE EGG EASER is formed of plastic strips or rubber tubing (even rope) to prevent eggs from banging into wire when rolling out of egg tray. A 1% reduction in cracks is worth $450 a year in a 10,000-bird flock.

UREA is being fed to 50 percent of dairy cows in Midwest, reports a Doane survey. Protein from plant sources is so expensive that urea has become far more widely acceptable.

CLASS I MILK was only 38 percent of deliveries in Puget Sound federal milk marketing order area in April, 1973. This in spite of Class I Base Plan in effect in that market.

GROWTH STIMULATORS available for beef cattle do not include recently-outlawed DES, but do include: MGA (Upjohn Co.) for heifers, Synorex (Syntex Labs) for either heifers or steers, and Ralgro (Commercial Solvents Corp.) for any beef animal not kept for breeding purposes.

THE FOUR-TIER CAGE system is catching hold with Maine poultrymen, reports poultry specialist Harry Whelden. He estimates 3/4 million layers in this system by this fall.

HUGE WHEAT CROP of around 1.7 billion bushels being harvested ... but price remains strong. Money earned from wheat will top all previous records.

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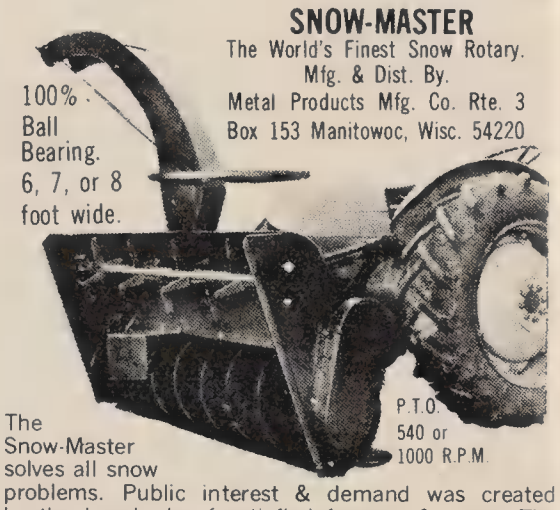


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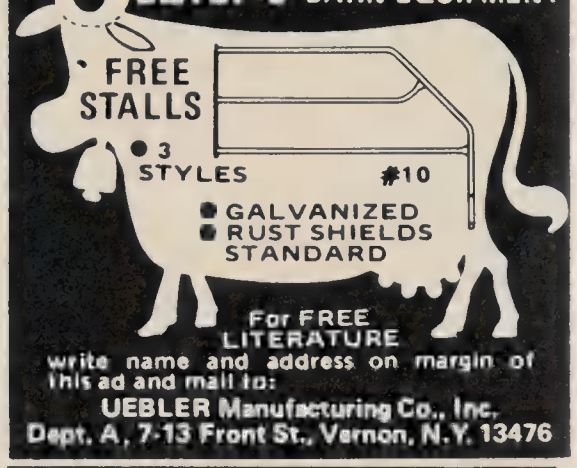
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ROUGHED-UP FLOORS

Take a concrete floor, sprinkle it with liberal quantities of manure and urine, scrape it once or twice a day for several years . . . and what will you get? You'll get a skating rink!

Visit with dairyman Albert "Toby" Johnson of Kingdom Road, Baldwinsville, New York, for example. When he built his new freestall barn back in 1966, he attempted to provide a nonskid floor surface by using a broomed finish on the concrete alleys.

Polished

However, he found that constant scraping, even without any down pressure on the blade, soon honed that rough surface to a high polish. "It became glass-smooth," remarks Toby. "In fact, you had to watch to keep from going down yourself. I worried about the cows. They slipped, but fortunately none ever split.

"However, when I turned in some new heifers, I soon got in trouble," he continues. "I brought in four, and two hurt themselves the first night. They had just come out of stanchions and their feet were still hard. Then when a first-calf heifer came in heat and she also split, I knew I had to do something about it and darn quick.

"At first, I thought I might rent a concrete saw like contractors use to cut grooves in curves on highways. But then one morning while milking, I thought to myself . . . why not take a hammer or maul and crack up that smooth surface? So we tried a small section. It looked so good that we decided to go over the whole floor.

"I substituted a crowbar for the maul," Toby reports. "Then a neighbor suggested I try a small electric jackhammer. Off and on over the next week, several of us were busy banging away at that floor."

Results

The results of their efforts are a series of surface indentations ranging from the size of a quarter to a half-dollar, approximately ¼- to ½-inch deep. A random and somewhat casual count by this observer indicated about 12 to 15 of these aggregate-exposing depressions per square foot. The rest of the surface remained undisturbed.

But Toby didn't stop there. Once he had finished that job, he started Phase II . . . treating the floor surface with muriatic acid. The acid was purchased in 15-gallon drums, and 1½ quarts of the acid (20 degrees Baume) was diluted by adding it to 1 gallon of water.

I asked Toby how he applied it. "Well, to begin with," he replied, "you'd better get some plastic pails . . . the acid will eat metal. We took two pails, and put a mark on the acid pail for 1½ quarts, then marked the second for measuring the gallon of water. We filled each to the mark, **then poured the acid into the water.** You want to be careful to stay away from the fumes," he continued. "You can see them . . . they kinda' steam up and fog.

"Before treating, we first scraped the barn, then moved the cows into a different area. Next, we took a rubber squeegee and cleaned the surface . . . then just poured enough acid on to cover the area we were treating. You can tell where you put it because it bubbles and foams up. If we missed a spot, we just spread it around with the squeegee or our rubber boots.

"We left the acid on about 30 to 45 minutes, then hosed it down and squeegeed it out the door. I don't know whether we needed to take it off or not, but we did it as a precaution. I didn't want to take a chance on hurting the cows' feet."

What were the results? Toby couldn't be happier. "It really did the job," he said. "I haven't seen any cows slipping. In fact, the other day when we were classifying, I saw some animals galloping around the bunk. They had absolutely no fear of slipping."

Toby treated about 4,600 square feet of floor area with the acid. He used about 50 gallons of 20-degree Baume muriatic. Cost per hundredweight in 15-gallon drums (Syracuse area) is $4.45 (with quantity discount). So the material cost for a barn the size of Toby's is around $25.

The corrosive action of the acid turned a mirror-smooth concrete floor into a granular non-skid surface. The finer particles were etched away to expose coarser material. How long will it last? Toby's not sure. But he quickly adds, "Even if I had to treat it twice a year, it would be well worth it."

Try It

Freestall dairymen plagued with similar problems might like to try the procedure Toby Johnson has used. If they do, they should remember that they are using a corrosive material. Heed the proper precautions . . . avoid breathing the fumes . . . avoid contact with the skin. Careless handling, at the very least, might cause holes in their pants. At the worst, it could produce holes in what's under their pants!

Chemical suppliers caution users to be sure and dilute acids **by adding the acid to the water . . . not vice versa!** They also suggest that anyone handling acid wear goggles and rubber gloves. Good ventilation is a must for dissipating fumes. If fumes are allowed to condense on metal surfaces, corrosion can result.

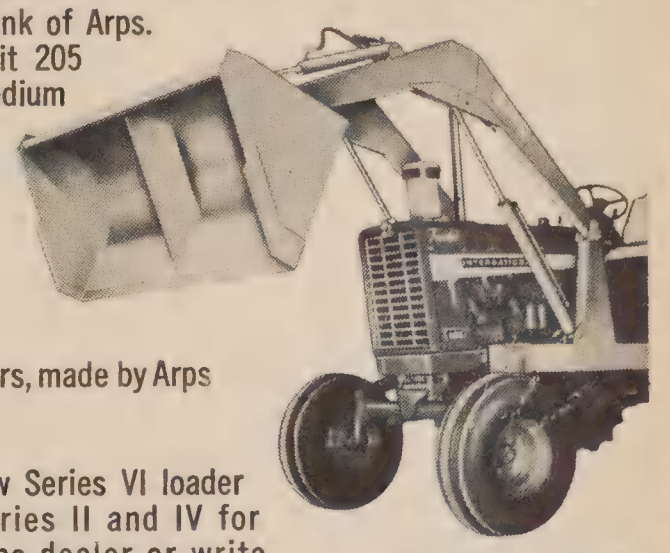
Obviously, the acid should not be flushed down metal drains or pipes. However, a basic material (such as limestone) can be used to neutralize the acid.

Muriatic acid is a dilute solution of hydrochloric acid. Twenty-degree Baume muriatic contains 31.45-percent hydrochloric acid. Further information on handling this or other acids can be obtained by contacting the Manufacturing Chemists Association, 1825 Connecticut Avenue N.W., Washington, D.C. 20009. — *William Quinn*

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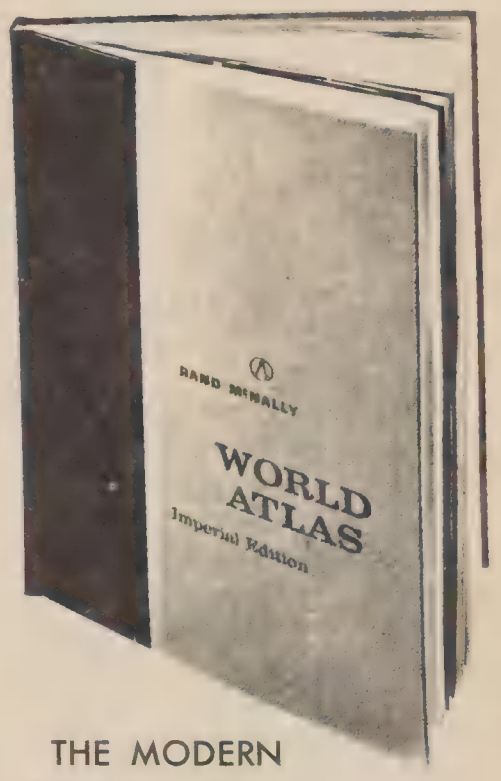
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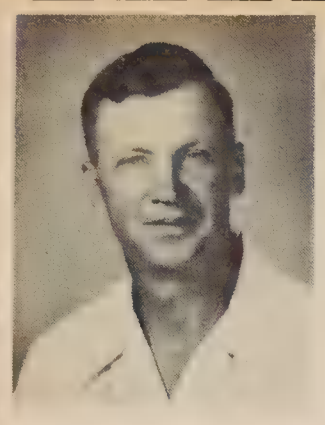
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Farm News, Notes and Nonsense

by Harold Hawley,
Weedsport, New York

UNITS OF MEASURE

It's long been a puzzle to me why we continue to quote prices for grains in such dissimilar terms. For instance, everyone is used to hearing wheat prices in terms of cents per bushel. Corn prices in the Northeast are usually in terms of dollars per ton, so I wasn't quite prepared to quote in cents per bushel when a Midwest friend asked me the other day. A few quick conversions and we were on a comparable basis. Soybeans, of course, are in cents per bushel . . . or, as high as they are, in **dollars** per bushel.

We've long heard proposals to get us on a metric system like most of the rest of the world. Much scientific measurement has always been metric but most of the rest of our computations are in feet and inches, gallons, pounds, etc.

The resistance to change is considerable but it seems reasonable to think the changeover will take place someday. In the meantime, maybe we should be doing a little more in our schools to teach the metric units and the conversions so the next generation may be more willing to accept the switchover.

The first really public use of the metric system that I've observed was along a freeway in Ohio where a sign proclaimed it to be 170 miles, or 250 kilometers, to Cleveland. A dual unit of measure in road signs once in a while would surely make a lot of folks think a little more about the metric system.

New Unit

Now let me try a new unit of measure on you for size. Many of us are used to thinking about pasture carrying capacity. For instance, good pasture might carry a cow per acre. In some of the arid range country, seven or eight acres may be needed to carry a beef cow and her calf. Outside Greeley, Colorado, Montfort and Co. run a "little ole feedlot" where they turn out some nice fat cattle. They had about 120,000 head on a section of land which, I guess, figures to about 200 head per acre. Of course, they didn't pasture the cattle but they sure fed them!

All the feed (corn silage, beet pulp, corn and barley, oats and milo, several sources of protein, minerals, some very limited amounts of alfalfa or pellets, and even a little greenchop) was mixed together in various proportions depending on the age and condition of the various pens of cattle.

Feeder cattle were brought from as far east and south as Alabama but mostly from west of the Mississippi. They bought wherever they could. They've gotten big enough and specialized enough to kill their own cattle and distribute meat almost nationwide in their own trucks and refrigerated freight cars.

They own a lot of irrigated land but do not farm, saying they can't keep track of crops, cattle, markets, etc. They lease their land out and contract with other farmers to grow the silage. If you lease their land, it's with the agreement to sell the corn silage you grow back to them at a contracted price. The silage is cut, trucked, and delivered to their bunk silos by the farmers who grow it. We were amazed that some of it moves 30 or 40 miles from field to feedlot on big self-unloading or dump trucks.

Talk about specialization! One kid we talked to said he did nothing all summer but irrigate corn. Deep-well pumps, powered electrically, run water down ditches at the ends of the fields. Bent pipes act like siphons to bring the water out of the ditch from where it runs down a trench between each pair of rows until it reaches the end of the field. This kid changes these siphons twice a day, keeps a check on the water and tries to get around to each field every four or five days. Talk about corn looking good — well, that sure did.

Fertilizer

What about fertilizer? Growers could have all the manure they could use for hauling it from the pile out behind the feedlot. They balanced it up with some phosphorus and potash.

Incidentally, the manure piling was a real problem. Probably 25 acres was used to store it at depths from 10 to 40 feet. It was dry enough so they graded it off, built roads on it, and bulldozed other layers of new manure into place. Yes, there was some odor . . . for several miles.

In spite of sorting gates and ingenious arrangements of alleys, pens and all, we noted that several horses were kept saddled and handy for sorting and working the cattle. Possibly it's not necessary to mention that some of these horses have forgotten more about handling cattle than most men ever learn!

Admirer

Being an admirer of a good horse of any kind, and particularly of a good cattle horse, I was absolutely taken by the agility and ability of these horses. I might add that a horse has to learn a little about taking care of himself in these pens and alleys. A load of cattle just in off the range, not handled much before and now in new surroundings, may not respond like a bunch of old milk cows would. A good horse learns to use his chest, teeth, or forefeet if need be.

Specialization was the word all through this setup. The feeder drove the trucks to the designated pens and fed it in the bunks along the alleys. Someone else decided on the ration for the cattle after a computer ran down the least-cost formulation that would meet their needs. Then the men at the mix center "put it all together" and the feeder just drove off with it to designated pens.

The health men were just as specialized from the head full-time vet down to his helper who crowded and coaxed the cattle into squeeze chutes for treatment. As you would expect, preventive medicine has to be a big part of the health program in such an operation. New additions get vitamins, antibiotics and serum, special rations at first, and whatever else they need for any specific problems.

I guess one of the most noticeable things about the beef business today compared to a few years ago is the change in the complexion of things. There was a time, except in the South or Southwest, when you could count on a man's cattle being red and white, black, or black with white faces. Since the introduction of the Charolais, plus some other new breeds from Europe, the color of cattle on the range or in the feedlot can be almost anything.

In the big feedlots where the cattle also come in from the South, there is an even greater range in color and conformation. Many breeders have long had some blood from Asia (India) Brahman and Zebu. This gives color variations as well as some big ears, loose, pendulous dewlaps and sometimes remnants of humps or "slopy" rear ends. If there happens to be some deep red Santa Gertrudis or crossbreds mixed in, you can get quite a variation. There are also enough cattle from Mexico, some colored dairy crosses, a few Holstein crossbreds, and rangy old longhorn types to keep anyone from being bored.

VEGETABLES

Specialization isn't restricted to the cattle business. On the same recent trip we watched some lettuce and carrot operators in California. Crews move into a field of head lettuce, cut and trim it, wrap and box it, load it onto trucks and move on to the next field. It's fantastic to see how fast each man or woman can perform his or her operation, that being all they do all day.

Workers

Incidentally, the workers we talked to belonged to the Teamsters Union. They had good jobs, good pay, and no use for Mr. Chavez or his union. The lettuce is grown by the landowners, bought standing by one of the few large packers, and shipped. These buyers hire the harvest help and move them from field to field as the crop becomes ready. They go over a field two or even three times. The farmer then plows it up, replants, waters, fertilizes, and raises another crop. So along a road it's a continuous process, with seed and fertilizer moving in and lettuce moving out all the same day.

We were intrigued to see carrots coming in from the fields in tractor-trailer loads, being weighed and dumped into big tanks of water from which they were elevated to scrubbers, washers and sorters. They ended up on assembly lines where women put them either in small bunches to be wrapped, boxed, coded and shipped, or into 50-pound boxes for shipping to processors.

SOME SYSTEM

We got to talking about all this produce headed out for all parts of the country. It's perishable, it's needed, and generally speaking, it's going to get to where it belongs on schedule. We commented that people all the way across the country could get a wide variety of food, even at some pretty remote places.

How do you account for this when you consider, for example, the time involved in delivering a letter and the uncertainty of its time of arrival? Think of the almost endless number of items, the perishability of some foods, the variation in grades, qualities and kinds needed from place to place and from time to time, and it **does** boggle the mind! No central system of planning or supervision could possibly get the job done. It makes one really appreciate what the competitive private enterprise system does automatically, day after day.

Example

We saw an example of this one night in a remote cafe-country store-gas station-motel-post office . . . all under one management. It was in southern Utah, 14 miles from a phone and 300 miles from the wholesaler who normally supplied the store and cafe. The regular Monday delivery hadn't come, it was now Wednesday night, and stocks were running low, but by doing a little substituting, everyone got fed. On Thursday morning, someone drove to the phone to find out what had happened to the truck . . . and to give the competition a chance if the answer wasn't satisfactory!

The point is that even out there, about as far away from it all as you can get in this country, there was still competition. The buyer had options . . . maybe not as many as he'd have in most communities here in the Northeast, but he did have a choice. This meant the sellers had to measure up to some level of performance for dependability, and also for price, quality and selection.

Tribute

It adds up to a tribute to our economic system, which serves us so well and so automatically day after day that we take it for granted. The more one thinks about it, the more thankful he should be that tomorrow's food supply, with its infinite variations of quality, variety, size, perishability and so on, is going to be there. Because of the profit incentive, a multitude of people will be motivated to move it along . . . far faster than would a mass of civil service people following some semi-rigid rules aimed at getting it to where it's going . . . and hopefully, before it spoils.

American Agriculturist, August, 1973

READER SERVICE



READER SERVICE CLAIMS SETTLED

NEW YORK

Mr. & Mrs. William Eddy, Carmel .... $ 50.35
(refund on policy)
Mrs. Ruth Manning, Springwater 314.72
(insurance settlement)
Mr. Lawrence Gongo, West Chazy .. 75.00
(settlement of claim)
Mrs. Donald Roberts Sr., Lorraine 7.98
(refund on order)
Ms. Vera Esche, Boonville 1.56
(additional refund)
Mrs. Mildred Rice, Petersburg 4.48
(account cleared)
Mrs. Alice McCormick, Eaton 4.73
(refund on order)

PENNSYLVANIA

Mrs. Bernadine Finnegan, Westport 39.24
(refund on order)
Mrs. Josephine Diefenderfer,
Coatesville 292.51
(claim settled)
Mr. John Ramsey, Butler 3.76
(check returned)

CONNECTICUT

Mr. William McGuire, North
Stonington 16.25
(refund on order)

FLORIDA

Mrs. William Holbert, Orange City .. 1.00
(refund on order)

DOWN THE DRAIN

We are advised by the Council of Better Business Bureaus, Inc., that the Wholesale Merchandise Club of America, 154 Jericho Turnpike, Floral Park, New York, and 681 Old Willets Path, Hauppauge, New York, has gone out of business.

The club has entered into an assignment to creditors under New York State bankruptcy laws. Complainants should file claims with the law firm of Goldman, Frier, and Altesman, 7 Dey Street, New York City 10007. Claims will be honored if accompanied by a proof of claim form or an affidavit.

Complaints may also be directed to Postal Inspector Harry Sysak, Post Office, Smithtown, New York 11787. Included should be details of the complaint, cancelled check or other proof of payment, and any correspondence from or with the firm. Each such item should be initiated and dated by the complainant at the time of submission to the inspector.

Related firms in assignment to creditors are: Suffolk Save Center, Nutri-Labs Inc., Lancer Industries Corporation and its subsidiaries, Pegasus and Colt Ltd., Heraldic Archives, Plexicubes Inc., and the Graham Agency.

MAKE IT LEGAL

Attorney General Louis J. Lefkowitz of New York State has warned against hiring unqualified individuals to perform legal work. The warning came at the time of his announcement of a Supreme Court order obtained by his office against an individual who had advertised in newspapers and magazines that he could obtain judicial divorces in New York State "at rock-bottom cost."

Investigation by the attorney general's staff revealed that the individual, operating from a Manhattan office, had unlawfully accepted compensation to perform legal work although not licensed to practice law.

Mr. Lefkowitz pointed out that lawyers are equipped to deal with legal problems and are accountable for their actions while laymen are not. He said: "The hazards of using unlicensed practitioners far outweigh any illusory savings in cost."

INSURANCE

The increasing number of inquiries from readers about insurance companies would appear to be a result of exposure to multi-state advertising on radio and television, through the mails, or in newspapers and magazines.

Although we cannot advise on what coverage a person should have or on relative merits of insurance offered by various companies, we can check on whether companies are licensed in the states where subscribers reside.

Since September 1, 1970, New York State has required that out-of-state insurers must be licensed to do mail-order business in the state, as well as to sell through agents. All insurers seeking to do business in New York State now come under the jurisdiction of the State of New York Insurance Department.

All phases of a licensed company's operations, including claims handling, premium rates, policy provisions, and financial stability, are subject to thorough examination by the state.

Other states in our circulation area also regulate insurance business within their states. Before committing yourself, make sure that the company is licensed by your state's insurance department.

Then read the policy carefully so that you fully understand what coverage you are getting.

NEW TIME LIMIT

Farmers in New York State have been given increased protection under a recent amendment to the Agriculture & Markets Law which strengthens provisions of Article 20 relating to time of payment for farm products.

Article 20 provides that commission merchants, dealers and brokers must be licensed to buy farm products and must file surety bonds. The license must be renewed each year.

Under the amendment, money due for farm products must be paid **within 15 days** unless otherwise agreed upon in writing. Failure to do so will be considered unfair conduct.

It is the grower's obligation to determine whether a buyer is licensed and bonded. This can be done by writing or calling the State Department of Agriculture and Markets in Albany (phone 518-457-4990).

Farmers are urged to deal only with licensed middlemen, to have transactions in writing, and to read contracts before signing.

Arm Lost In Spreader

Mr. Jay Burch of Grandville, N.Y. had done it hundreds of times — standing at the tailgate with the beaters out of gear, he would reach in to clean out the last of the load. But this time the spreader apparently was out of adjustment for the beaters jumped back into gear. His arm was caught and yanked into the beaters and track. To save being completely dragged into the machine he broke and tore his arm loose then walked about an eighth of a mile to the road. He was rushed to the hospital where they immediately gave him five pints of blood to save his life. Twenty-three days later he came home.

Although he carried but two North American policies he received loss of arm and medical expense benefits totalling $2270. As Mr. Burch said, "It was very helpful in paying the bills (hospital and doctor bills alone ran over $3000). I would encourage others who have North American insurance to keep them up and recommend the protection to all others."



Local agent Richard A. Patrei of Albany, N.Y. delivered checks for $2270.00.

OTHER CLAIMS PAID

A friend's name may be in this list.

Florence Winne, Voorheesville, N.Y. ... $ 497.13
Auto accident—broke pelvis
Lee Welty, Whitesville, N.Y. 273.30
Crushed by cow—injured hand
Jessie Prentice, Whitney Point, N.Y. ... 330.62
Fell off horse—injured back
Gerald Linderman, Hinsdale, N.Y. 2080.00
Pinned by bull—broke leg
Joseph Wolf, Allegany, N.Y. 755.03
Cutting cable—injured eye
Tabitha McDermott, Genoa, N.Y. 233.58
Stepped on nail—inj. foot
William Speelburg, Findley Lake, N.Y. 1236.43
Caught in tailgate chain—broke fingers
Sam Cusimano, Jamestown, N.Y. 732.85
Fell off ladder—inj. ankle, hip
Richard Patten, Lowman, N.Y. 933.58
Auto accident—chest injury
George Kolb, Norwich, N.Y. 1640.71
Grease fire—burned face, hands
Marie Bulriss, Mooers, N.Y. 674.97
Pinned by cow—inj. shoulder
Theodore Law, East Freetown, N.Y. ... 361.86
Calf bolted—injured hand
John Gabel, Jr., Walton, N.Y. 505.54
Saw slipped—inj. hand
J. Barton Archibald, Delhi, N.Y. 590.00
Pushed by cow, fell—broke hip
Jay Lamb, Eden, N.Y. 591.32
Nail flew—inj. eye
Robert Hazen, Jr., Brushton, N.Y. 193.32
Tractor accident—inj. foot
Donald Sharick, Corfu, N.Y. 767.56
Fell off roof—head injury
Phillip Nicastro, Frankfort, N.Y. 314.28
Auto accident—inj. hip
Anna Horigan, W. Winfield, N.Y. 245.38
Fell downstairs—inj. shoulder, back
Hugh Delano, Adams, N.Y. 1765.00
Auto accident—broke knee
Cecil Bloss, Carthage, N.Y. 1061.00
Lifting plywood—inj. shoulder
Lewis Keefer, Croghan, N.Y. 2055.00
Kicked by cow—inj. knee
Rose Widrick, Castorland, N.Y. 943.80
Fell downstairs—cut leg
Grace McKay, Caledonia, N.Y. 328.00
Ladder gave way—broke wrist
Earl Hyatt, Cazenovia, N.Y. 405.00
Slipped into PTO—broke ribs
Charles Desjardins, Hubbardsville, N.Y. 197.12
Hit by baled hay—injured chest

Fred Strussenberg, Hilton, N.Y. ..... $ 494.75
Fell on cement floor—inj. elbow
Mary Korona, Fort Johnson, N.Y. 450.00
Chair collapsed—inj. neck, shoulder
Edward Turverey, Manlius, N.Y. 721.41
Chute fell—broke pelvis
Edward Primrose, Jordan, N.Y. 232.43
Caught in V-belt—cut hand
Rita Hilliard, Geneva, N.Y. 1594.13
Auto accident—inj. chest
Karl Marth, Albion, N.Y. 1305.00
Caught in PTO—broke arm
Charles Stowell, Mexico, N.Y. 274.68
Hay caught fire—burned arms
Ludwig Kerzick, Cherry Valley, N.Y. 210.05
Fell through hay chute—inj. back
George Tobey, Gilbertsville, N.Y. 422.12
Auto accident—broke heel
Stephen Munson, Winthrop, N.Y. 351.36
Hit by cow—broke arm
Ralph Durant, Lawrenceville, N.Y. 253.00
Using chain saw—cut foot
Sherry Alguire, DeKalb Junction, N.Y. .. 905.85
Run over by tractor—broke arm
Stanley Rickard, Cobleskill, N.Y. 675.00
Fell from hay load—broke wrist
William Eastman, Ovid, N.Y. 460.00
Hit by grapevine—inj. eye
Ralph Kinney, Avoca, N.Y. 261.43
Unplugging mower—cut hand
Robert Button, Jr., Jasper, N.Y. 439.25
Riding horse, fell—inj. leg
Harold Billings, Avoca, N.Y. 431.17
Caught in pulley—broke hand
David Thomas, Berkshire, N.Y. 561.33
Transformer fell—broke foot
Samuel Sweeney, Freeville, N.Y. 184.26
Fell off sawhorse—broke rib
Dana Luckman, Walworth, N.Y. 773.72
Tree limb fell—broke pelvis
Earl Rainbow, Palmyra, N.Y. 1317.67
Knife slipped—cut tendons
Gasper DeFelice, Wyoming, N.Y. 1300.00
Fell off combine—inj. knee
Stillman Kendrick, Wellsboro, Pa. 310.00
Crushed by cow—broke rib
Frank Westra, Belvidere, N.J. 325.00
Fell off tanker—broke leg
Robert Perry, Elmer, N.J. 1090.76
Auto accident—head injuries
Guy Smith, Vergennes, Vt. 265.70
Stepped on by heifer—broke toe

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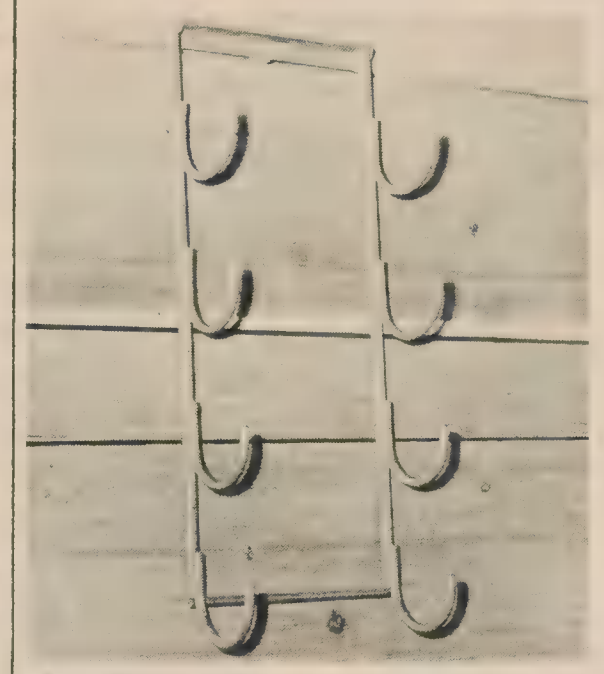
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HANDY on the Farm



Gun Rack – Various grease guns are hung in this wall rack near the farm machinery so they are quickly available when servicing tractors, trucks, etc. The rack is welded from iron rods suspended from an angle iron fastened to a wall. This saves time, too, by having guns with fittings of several types right at hand.



Feeder – An old car tire makes a good salt and mineral feeder for pasture or lot. The bead is cut off one side of the tire and the casting turned inside out. The side with the bead is fastened to a square of exterior plywood by several small bolts. This feeder is easy to move and cannot be damaged very easily.

Rolling Cart – This cart is easy to make with a welding torch . . . most of it from scrap metal. It has a thousand uses around any farm shop.



Clamp – Lining up the ends of two pipes or ion rods and welding them in a true joint is no trick with this homemade jig or clamp. A pair of clamps with thumbscrews hooks over the angle iron base and holds the material to be joined.



Guard—A guard of welded pipe around the automatic waterer protects it against livestock crowding and possible breaking of the water pipe which supplies it.





Provide your cattle with an inexpensive back scratcher. Suspend lengths of machine chain between posts in the cattle yard. The chain can usually be purchased at scrap price from local junk yards, and it will give the cattle a place to scratch that itching spot . . . rather than take out their irritation on building corners and feed bunks. Photo: R. S. Tupper

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Honeymilk – Another new dairy product will soon be available in New York markets, reports John Sliter, general manager of American Dairy Association – Dairy Council of New York. It's Honeymilk, a combination of low-fat milk and natural honey . . . and said to have been an instant success in test markets in the Midwest.

Honeymilk is one of several new dairy products developed in cooperation with Dairy Research, Inc. (DRINC). Already on sale in New York markets are Alba '66 hot cocoa mix and Alba '77 Fit 'n Frosty chocolate and strawberry shake mixes, along with Pillsbury Instant Breakfasts in various flavors. They're all the result of product and market development efforts supported in part by the five cents per hundredweight collected from the milk check of every New York State dairyman.

Milk Wine – Not yet available commercially, a new milk wine (11 percent alcoholic content) made from whey and nonfat dry milk would appear to be a winner if problems of over-fermentation can be worked out. Experiments have also produced a cheese with alcoholic content of 5-6 percent. So reports Dairy Research, Inc. (DRINC), of 6300 North River Road, Rosemont, Illinois 60018.

Calf Vaccine – A new product said to greatly reduce death losses among newborn calves from a certain form of diarrhea is reo-viral calf diarrhea vaccine. Recently licensed by the USDA, the new vaccine is available through your veterinarian.

Officials stress that the new product is not a cure-all for all types of diarrhea in calves, but could be especially helpful if the farmer has had previous trouble with calf losses from diarrhea the first week of life. The vaccine must be administered to calves as soon as possible after birth. Vaccination after the first day of life will probably not be effective against diarrhea and death losses.

NDC Board – Northeast dairy leaders newly elected to the 1973 board of directors of the National Dairy Council are: Willis Greaser, Williamsburg, Pennsylvania; Paris Ives, Bainbridge, New York; Raymond Johnson, Schaghticoke, New York; Pete Sanford, Midland Park, New Jersey, Willis Torrey, Jr., Brandon, Vermont; and Donald Wedin, Greenwich, Connecticut. The 60-man board constitutes national representation for all segments of the dairy industry.

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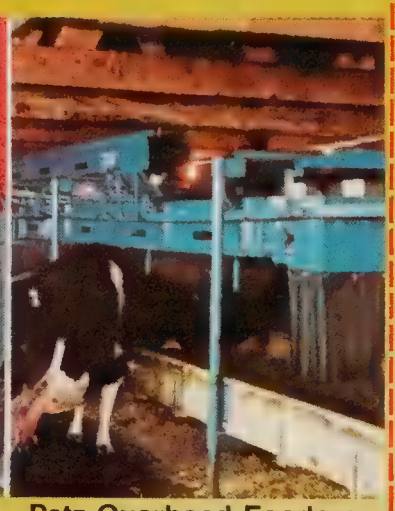
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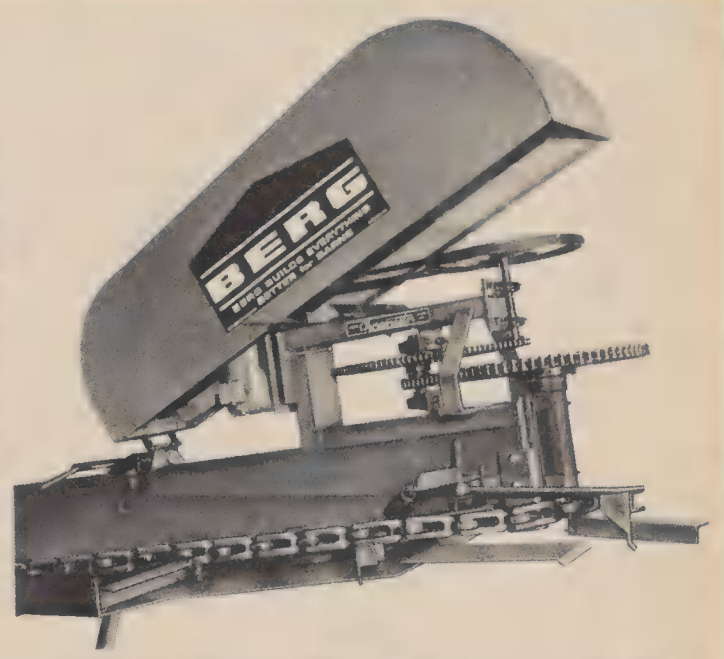
OUR COVER

Bryan Strickland of Williamson, New York, rides to market with part of harvest-time's overflowing abundance.

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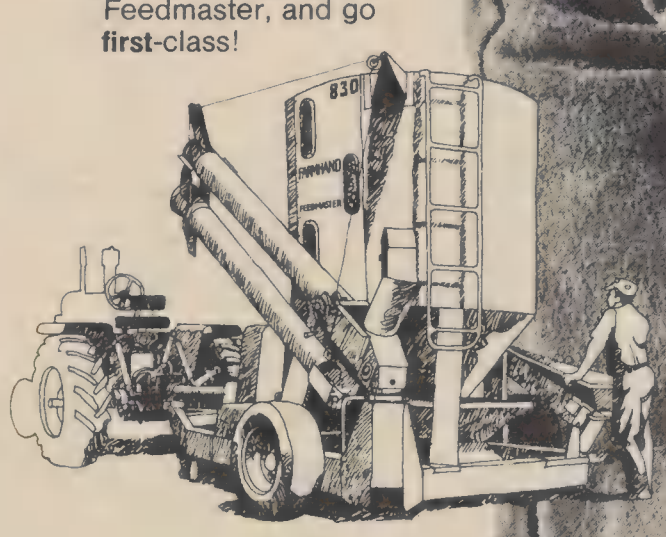
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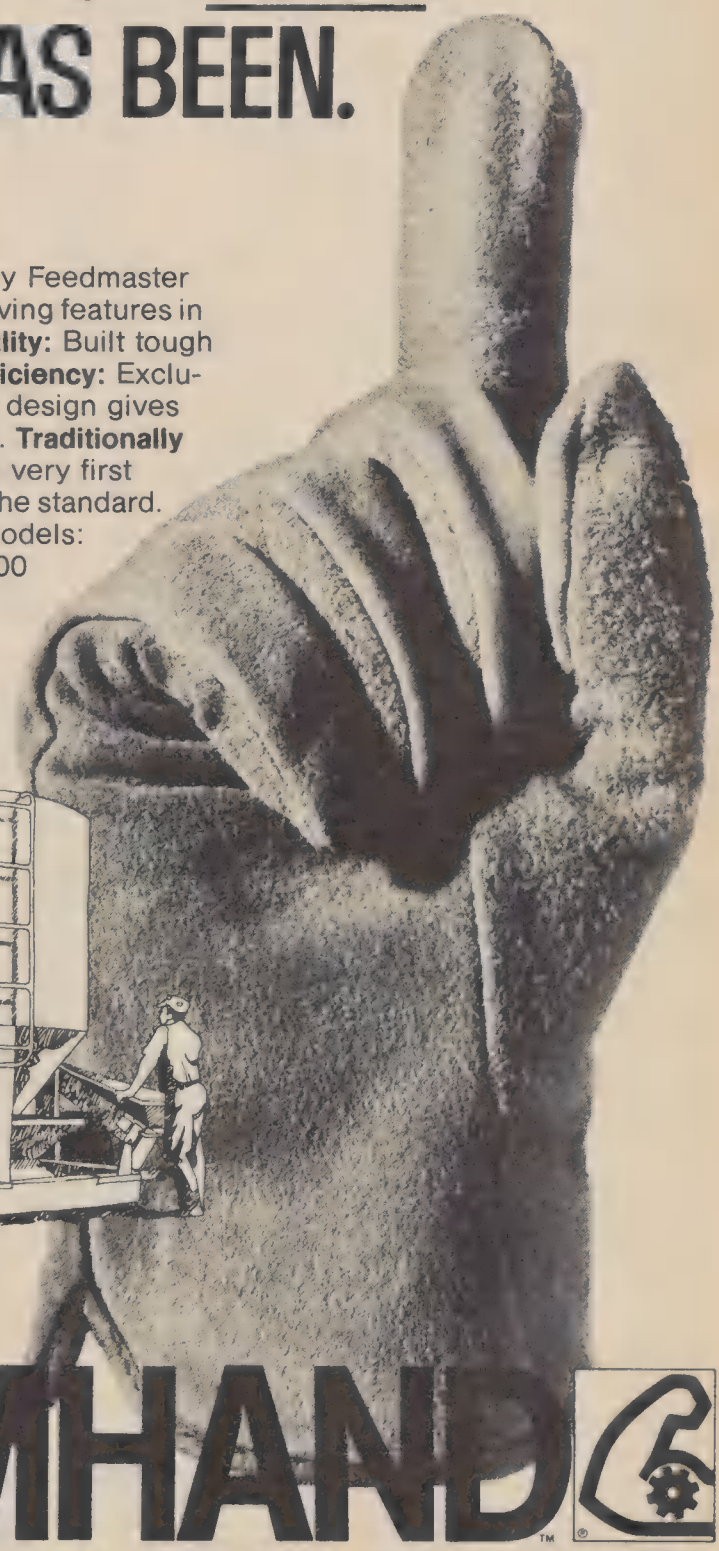
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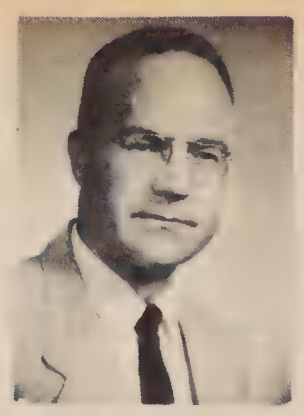




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EDITORIALS



by GORDON CONKLIN

NEW DIMENSIONS

Over the years, AMERICAN AGRICULTURIST has consistently attempted to help in publicizing such youth-oriented organizations as 4-H, FFA, Youthpower, and others. The AMERICAN AGRICULTURIST Foundation has as its purpose the enhancement of educational opportunities for young rural people in the Northeast, and annually awards 16 scholarships to college students.

Another entry in the list of groups helpful to young people was called to my attention the other day. Within recent years, the Boy Scouts of America organization created an "Explorer" program for young people ranging in age from 14 to 21. It involves young adults in a broad range of activities under the guidance of adults from many walks of life.

Areas of special interest include such categories as agriculture, conservation, food management, forestry, natural sciences and veterinary medicine. Explorers, in many instances, actually plan their own programs to pursue those interests that will be most meaningful to them.

For details, contact: Exploring Division, Boy Scouts of America, New Brunswick, New Jersey 08901.

THE ONLY ONE

As the years move on, there are ever fewer things I know for sure. But a conviction that has grown steadily is that I am not impressed with the case of those who claim to have the **only** answer to the world's problems.

We've all heard the apostles of some cause come down the pike claiming to possess the **only** route to salvation. Folks from the Assembly of God come to the doors of our homes, telling us that we must embrace a certain line of theology to be "saved" . . . the Roman Catholic priest tells us we must give our allegiance to his religious dogma to find Heaven . . . the Protestant minister tells us his branch of Christianity is the **only** faith that is right . . . our Jewish friends claim they're **all** wrong!

The NFO organizer passionately proclaims that his organization is the **only** one "that ever did anything for farmers, or ever will" . . . the Democrats claim their party is the **only** one "for the common man" . . . and so on and on.

Whenever I hear such claims being made, I suspect that leadership is seeking to attain more power, or hold on to that already gained. Loyal adherents are essential to a power structure . . . and the kind of loyalty sought by all too many leaders is the kind that consistently looks down its nose at competing organizations. Members of one farm organization will serve the purposes of its leadership best if they can be stirred up to **hate** competing organizations.

The truth, it seems to me, is that there is more than one path to Heaven . . . more than one way to run a farm organization constructively on behalf of farmers . . . several ways to effectively approach most any problem. Is it not possible to serve one organization loyally, yet still be open-minded in searching for the strong points of a competing organization? To look for nothing but the negatives in our nation, our competitor, our neighbor, (and oneself) is, it seems to me, the path to hell here and now.

It's my good fortune to be acquainted with members and leaders of many competitive organizations like the Grange and Farm Bureau, the Dairylea Cooperative and Eastern Milk Producers. It seems to me that all these organizations have much of which to be proud, but . . . because man is a highly-competitive animal . . . their leadership, almost by instinct, tends toward the "only us" concept. Mutual suspicion inevitably results, and its impact is negative for agriculture as a whole.

Let's resolve, folks, to shake a grain of salt on the flaming zealot who claims he has found the "**only**" way. Look for the pluses, as well as the minuses, of people and organizations across a broad spectrum of the society of our times.

But never forget that the AMERICAN AGRICULTURIST is the **only** farm paper for the rural Northeast!

HOS MANURE

Whenever I sit down to watch one of those television "documentaries," I always take a salt shaker along. All too often, they represent the biased opinions of some TV executives who begin with a foregone conclusion . . . and then set out to "prove" it by the techniques of show biz.

A case in point was the recent rerun of "Harvest of Shame." CBS did this one back in 1960, and wheeled it out again this summer to mislead the public once more about seasonal-labor conditions.

The American Farm Bureau Federation has prepared a statement pointing out 19 specific inaccuracies or distortions of information in the film. The network, however, figured that it had a perennially-popular anti-grower cause . . . especially amidst rising food costs . . . and so rejected all questions raised about the honesty of HOS.

I hope . . . as the sleekly-groomed television executives in their air-conditioned offices also claim to hope . . . that growing numbers of seasonal laborers will be trained to do work for which they will receive increased wages. Many of them have achieved this.

But I would also hope that the telly-execs might be realistic enough to accept the fact that higher wages to farm workers must also mean higher food costs to consumers. Come on, fellas, let's not follow up HOS with a biased "documentary" charging cost-squeezed farmers with "gouging the public"!

THE PRICE OF LEADERSHIP

We tend to think of lawlessness as being common in the big cities.

As the grim joke goes, a heavily-muscled young tough in New York City accosts a tourist with the question, "Do you know where Central Park is?" Receiving a negative response, he growls, "Okay, then I'll mug you here."

But the infection goes far beyond the city limits; rural areas are not immune. Only recently, I visited with a friend who operates a cash-crop farm in Central New York. To round out the farm enterprise, he also grows pullets in a building especially designed for that purpose.

A man of deep commitment to his community, he served on the local school board for 24 years. During that time, and especially in recent years, this centralized school system has had its share of student unrest and problem individuals. The school board has the authority to expel students, and on occasion has done so.

Not long ago, this farmer's building housing 15,000 started pullets (six weeks old) was entered by persons unknown. Many birds were released from their cages . . . something that had been done by prowlers on a previous occasion . . . but this time the intruders also **turned off** the **ventilation fans.** By morning, all 15,000 birds lay dead in the windowless house . . . and my friend was out $20,000. His insurance did not cover vandalism.

My friend suspects that he was the victim of a vengeful person connected with some discipline problem involving the Board of Education. It can cost more than just time and worry to serve on a school board!

In any case, the incident is typical of our time . . . a time of unparalleled affluence in America . . . and yet a time characterized by unparallelled permissiveness to "do your own thing."

The question I'm left with is whether the burgeoning permissiveness is really what the majority of us want . . . or whether human fulfillment is found more fully in the demands of discipline at the school, in the home, and . . . most of all . . . within ourselves.

AEFLOP'S FOIBLES

Once upon a time, in the land of Organized States, a great hue and cry arose because food prices had gone up sharply. People wrathfully descended on the princes and nobles of the king's court and demanded a price freeze on food.

The king's wisemen pleaded in vain that price ceilings destroy the incentive to produce more, that they lead to black markets and long-run problems far worse than the original one. So the decree went forth that food prices must remain low so that the people could continue to spend most of their gold for other things.

The yeomen of the land, numbering only five percent of the populace, received the news with dismay. For generations, they had produced an abundance . . . so much so that the townsfolk spent a smaller and smaller portion of their gold for food.

But the tillers of the soil could not bring themselves to join the irresponsibility of their time . . . the defiance of law, and the violence that filled the land with fear. But neither would they accept consignment to serfdom.

So they sold their livestock at the markets, and they cut back their efforts in the fields . . . and a great shortage of food came upon the land.

The people's rising hue and cry now made the former commotion seem tame by comparison. "What does it profit us," they cried, "to have the price of beefsteak fixed at 50 shillings per pound . . . but have no beefsteak?

Fearing revolution, the king decreed that every yeoman must increase forthwith his production of food by twenty-five percent . . . and that cattle must henceforth be ready for market by weighing 1,100 stones at six months of age. The yeomen chuckled at such uninformed fuming . . . and went fishing.

The moral of the story is that issuing decrees does not produce any more food . . . and that price ceilings on food create only a fool's paradise.

THE PASSING PARADE

The OSHA inspector had thoroughly tonguelashed the fruit farmer about all the occupational hazards on this particular farm . . . and had threatened the grower with dire consequences if the problems weren't corrected immediately.

Noting the farmer's grim face, the inspector growled, "I suppose you're hoping lightning will strike me so you can spit on my grave."

"Not me," the farmer replied, "When I got discharged from the army, I vowed I'd never stand in line again!"

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THREE men who farm near the town of Penn Yan in Yates County are making their operations pay off by raising hogs. They all stress modern management techniques, and take advantage of every available tool to obtain a good living from their farms. A technique common to all three operations is the feeding of high-moisture corn.

Hamlet Farms

Fred Hamm and sons of Hamlet Farms, Inc., run a commercial swine herd of 175 brood sows on their grain farm, which includes 500 owned and 125 rented acres.

Fred stopped dairying nine years ago due to the shortage of dependable labor. During his first years of farming, he raised 300 market hogs on three different farm locations. In 1971, he concluded it would be a good idea to centralize the operation.

"I wanted to economize, so I decided to go to one building and high-moisture corn on one farm," he explains. "I began by adding a new 32×144-feet finishing barn with liquid manure system, a 2070 Harvestore for high-moisture corn and by converting the old cow barn into a nursery."

The nursery has 20 farrowing crates and 12 holding pens with an overall capacity of 32 sows with pigs. The Hamms try to average two litters per year from each sow, keeping six boars year-round for lot breeding. They raise their own replacement sows.

To give the sow more room to move around, Fred takes the baby pigs from the farrowing pen at two to three weeks and transfers the litter to the holding pen. He weans at five to six weeks when the pigs weigh 20 to 25 pounds . . . averaging eight pigs weaned per litter.

The enclosed confinement-finishing barn is completely ventilated with a six-fan system and has 14 pens (each 10×24 feet) containing 33 to 34 pigs per pen. A manure gutter, leading to a 34,000-gallon sealed underground tank, is 142 feet long, 18 inches wide, and 2 feet deep.

"The first 12 feet of each pen has a one-half-inch drop per foot, and the second 12 feet has a one-inch drop per foot," Fred explains. "The barn has never been scraped, or gutter cleaned, since being built two years ago. I've never put a shovel to it."

At three weeks, the pigs start receiving creep feed. This ration contains 400 pounds of wheat, 400 pounds of corn, 300 pounds of oats, 200 pounds of soybean oil meal, 200 pounds of 40-percent-protein hog supplement, 50 pounds of vitamins A, D, and E, and 20 pounds of limestone. When the baby pigs reach 45 pounds, they are switched to high-moisture corn and 36-percent-protein sow and pig pellets.



Hand feeding in his finishing house gives Fred Hamm an opportunity to check his market hogs twice a day.

"I didn't invest in automatic feeders," Fred remarks, "because with them a person doesn't look at his hogs enough. By hand-feeding twice a day, it affords me an excellent chance to check my pigs. It takes one hour per day to feed the 500 hogs, and costs me around $40 to put one hog on the market.

"I made the switch to high-moisture corn storage to cut down on handling a bushel of corn seven times before getting it into a hog's stomach," he explains. "The switch was for labor savings. To go the dry-grain route would have cost me $10,000 for a dryer and $16,000 for proper big storage."

The Hamms hope to increase their herd to 300 brood sows over the next five years, and plan to add another oxygen-limiting unit (a 20×35) for high-moisture corn this fall. With steady labor contributions from his four sons; Ronald, 16; Daniel, 15; Donald, 14; and Jerald, 10; Fred envisions reaching both goals.

Far View Farm

With a magnificent view across Seneca Lake, Far View Farm is appropriately named.

Alvah also began farming as a dairyman, but due to arthritis and the shortage of labor he got out of that business in 1970. But at that time, he was already deep into hog farming. His two sons, Douglas and Jeff, began raising hogs in 4-H, so in 1968 Alvah started a pig operation with registered Yorks. However, in 1970 a fire destroyed their basement barn along with 300 head of breeding and market stock.

"The fire set us back five years, and made me wonder whether to stay in farming or get out," Alvah recalls. "It was then I decided I wanted a complete unit. That is why I erected a 24×96-feet farrowing nursery and a 20×40-feet oxygen-limiting structure for high-moisture corn two years ago."

The Wayands have 50 sows farrowing 1.9 times per year. They utilize five boars and have sold a fair amount of breeding stock. Located in two other farmsteads are facilities for housing 80 sows and gilts and finishing 70 market hogs. They raise all their own herd replacements.

The farrowing nursery has 16 farrowing crates and 10 nursery pens on a side. Alvah farrows nine pigs per litter, marketing an average of eight. He starts creep feeding at 10 to 14 days, but says it usually takes three weeks before the baby pigs eat well. Weaning is done at five to six weeks.

Pigs go on dry feed at 50 pounds, and are then transferred to a mixture of a complete 34-percent supplement and rolled high-moisture corn. Alvah admits he has to tighten the feeder down because there is a tendency for the young pigs to root out the protein and eat only the corn. His sows receive a daily ration of 5 pounds of high-moisture corn and 1.5 pounds of protein supplement.

Finishing pens are 15×30 feet; each contains 30 head. Alvah and his sons mix in protein, bag the feed and then haul it for all their market hogs. The two self-feeders each hold 900 pounds.

"Our biggest concern in the hog business in this area is that we are more limited in our type of ration as compared with other producers in the country," he confesses. "To help cure this situation, we will start adding oats to our ration for bulk and protein, and begin farm grinding and doing our own mixing of the sows' ration. I also think we can put together a strong creep feed with high-moisture corn as a base because of its palatability."

This year, Alvah planted some high-lysine corn which he hopes will further result in a savings on protein. His long-range plans call for increasing up to 100 to 125 sows and selling two tons of pork per year per sow.



Alvah Wayand makes his rounds of the nursery. These sows get a mixture of high-moisture corn and protein supplement.

Dairyman

Although Bartel Borglum feeds high-moisture corn to the 200-250 hogs he markets each year, he finds the high-energy feed even more useful in his dairy operation.

Bartel started farming as a hired man for his father in 1959. In 1964, he went into partnership on the dairy

with the older Borglum. At that time, they owned 70 Holstein calves and cows. Seven years later, he bought the dairy cattle and purchased the 170-acre farm. He now has 34 milk cows and 70 head of young stock.

"My father would have fed high-moisture corn when he was farming, but he never used it because it wasn't available in this area . . . in fact no one in this part of the country had any experience with high-moisture corn," he recalls. "However, when I took over the farm, planning to continue the dairy operation, I decided we would get into high-moisture corn. So, I put up a 2030 Harvestore in 1971 and we've been feeding wet corn ever since. I really like the convenience and economy of high-moisture corn!"

fed, but Bartel plans to switch to a self-feeder because he is not satisfied with floor feeding for market hogs.

Over the next few years, he plans to increase the hog operation . . . but the dairy's future is in question due to a combination of labor problems and state regulations for safety, health and other concerns. Even when facing the problem of whether or not to stay in dairy farming, Borglum still feels the high-moisture corn has started him in the right direction in the business of milk production.

In times when cost-cutting and innovative techniques can spell the difference between success and failure, it looks as if high-moisture corn will find its way to an increasing number of hogs in the Northeast.



Bartel Borglum has little difficulty finding willing takers for a scoop of high-moisture corn, be they cow or hog.

Replaces

The corn is used for the livestock operation strictly in place of ground feed. A cow milking 50 pounds per day receives 30 pounds of corn silage, 20 pounds of concentrates (which includes a 44-percent-protein soybean mineral supplement and high-moisture shelled corn) and all the dry hay she can eat.

This dairyman has been on DHIA owner-sampler records for two years. His herd average is 14,556 pounds of milk and 476 pounds of fat. Bartel says the corn never really increased his butterfat or total production, but he says that over a five-year period he will save $12,000 in feed-grinding costs.

Sideline

Hogs are a sideline for the Borglums. They started with three bred gilts in 1970 . . . now keep 20 sows, farrowing twice a year. The pigs are weaned at six weeks and are fed a ration of high-moisture corn, vitamin pre-mix and a 14-to-16-percent-protein supplement. Pigs are now hand-

LIVESTOCK



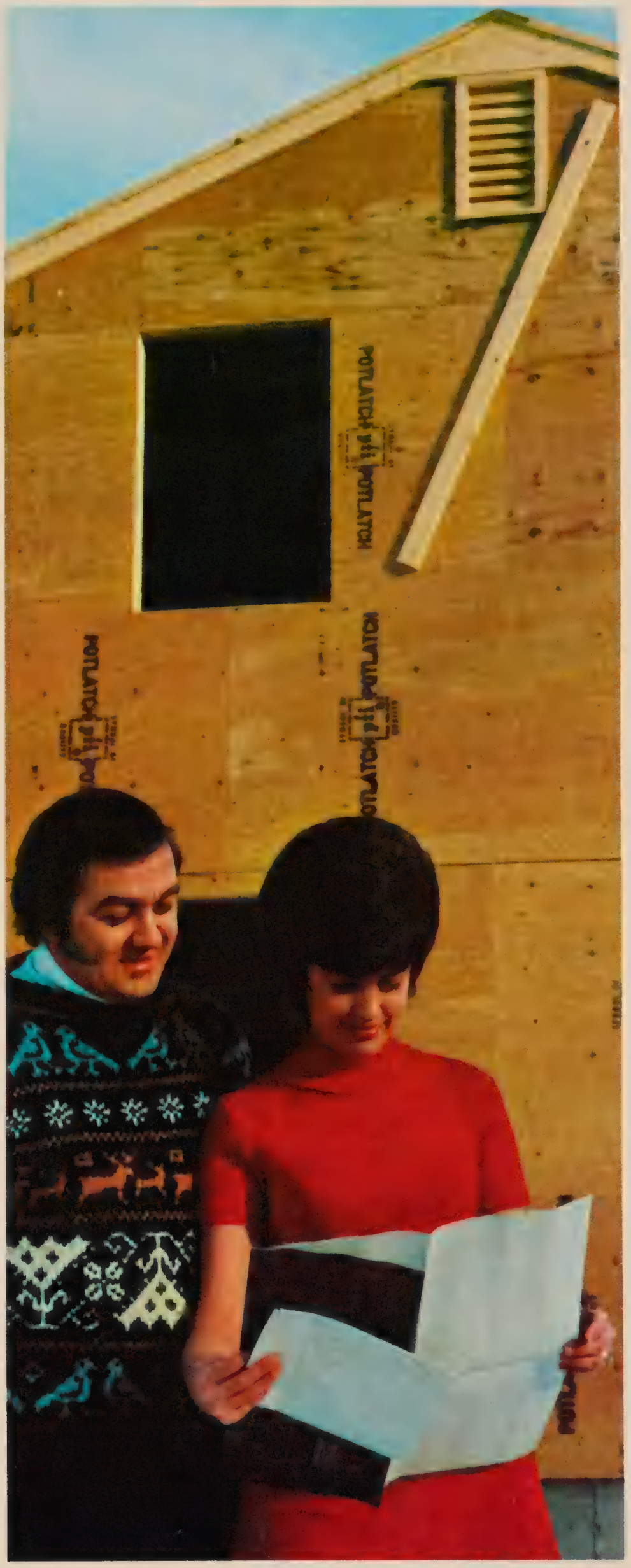
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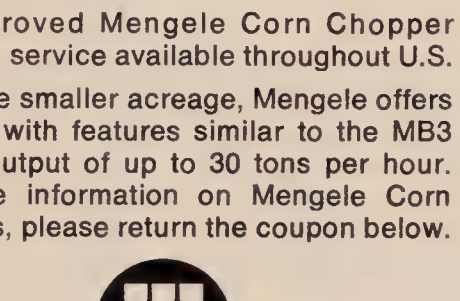
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Doc Mettler comments on:



Feline facts

THE coming of Labor Day gives the same sort of relief as a thunderstorm after a prolonged hot spell. Summer is nice, and so are the people it brings to our hills, but it gives me a more relaxed feeling to be able to go into the general store on Saturday morning and visit with the proprietor a few minutes instead of having to shoulder through a maze of customers to locate what I want and then find the store owner so busy he can't even remember my name!

Calls are easier to make now that there is less traffic, and I can safely take my eyes off the road a bit more to study the changes in the hills, or look for deer in the clearings along the edge of the woods. Our Berkshires, and the Catskills we see at a distance, seem to change every few minutes from sunup to sundown, and it is difficult for me to keep my eyes off them as I travel.

Abandoned

I cannot think of any big problems that early September brings, but all seasons bring their small problems. One of these might not seem like anything a large animal practitioner should be concerned with, but like it or not, he is apt to become involved. That problem is the abandonment of cats by city dwellers returning to their homes after a summer in the country.

This summer in particular seemed to bring a great increase in the cat population on local farms. Many of these kittens were given to summer residents who suddenly realized . . . about noontime on Labor Day . . . that they just could not take the animals back to their urban or suburban homes. The majority of these people **do** bring these cats to their local veterinarian or humane society shelter for disposal, but too many are simply left to become wild, or are dropped off at the barnyard gate of a nearby farm.

This practice of dropping off cats creates at first an excess cat problem on some farms. Then later, because of the spread of disease, enough cats are lost for the farm to have a cat shortage. A good cadre of rodent-hunting cats is a very important part of most farms.

Value

Mortality from automobiles, machinery, and being stepped on by cows and horses seems to keep the cat population at a desirable level on most farms . . . to the point, in fact, where most of us don't realize the value of the remaining animals until they suddenly all die off from distemper or become sick and worthless from penumonitis and/or parasites.

The so-called cat distemper or feline panleukopenia (which has nothing to do with distemper in dogs or horses) can wipe out every cat on a farm in a matter of days, and unless immune replacement animals are brought in, every kitten brought onto the place after this will die.

The symptoms of cat distemper are classic. Some animals will die in a matter of hours from the time they are first noticed ill, but the usual case will sit around hunched over the food dish but not eating for two or three days before he dies.

Treatment is usually of little help, but on occasion, when a particularly nice pet or a good old mother cat is concerned, it is certainly worthwhile to take the pet to your local veterinarian for diagnosis and treatment. All too often, the survivors are so weakened that you will end up having to destroy them anyway.

Fortunately, a good vaccine is available for this disease, but like most immunizing agents it must be used **before** the disease starts. If you have lost cats with distemper in the past and have not immunized against it, early fall is a good time to have your veterinarian vaccinate all this summer's kittens nine weeks of age or older.

If you have already lost all your cats by distemper and cannot introduce new ones without them dying too, your veterinarian can vaccinate a litter or two on a clean farm and a couple of weeks later these immune animals can be introduced as the "foundation stock" for a new cat population.

If you hear that your neighbors are losing cats by distemper, it would be a good idea to have your veterinarian vaccinate all the cats on your farm now, before a wandering tom or a drop-off introduces the disease. It goes without saying that a favored kitten kept as a house pet should be vaccinated early in life just as you would the family dog.

Pneumonitis

Feline respiratory disease or pneumonitis generally does not kill, but cannot be immunized against with any certainty. The sneezing cat who appears to be sick with running eyes and nose, but does not die, usually has this disease. The virus causing it could be compared to the human cold virus, in that it can affect the same animal several times in its lifetime. Secondary bacterial infection can cause these cats to go into regular pneumonia and die.

Your veterinarian can treat these animals with fair success, or prescribe treatment that will save most of them. The ones that remain chronic might better be destroyed, as they apparently are carriers. This disease can cause abortion in cats, but to the

(Continued on page 10)



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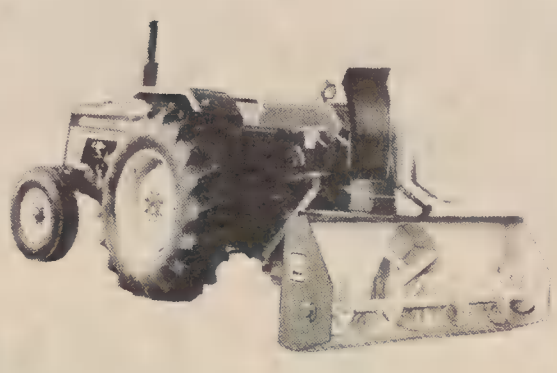
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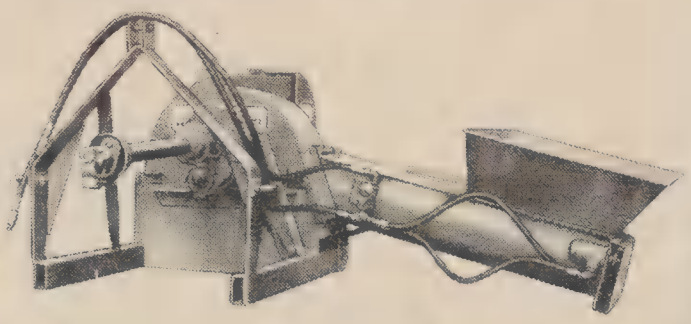
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Facts . . . . .

(Continued from page 8)

best of my knowledge will not cause abortion in other farm animals. As in many of these types of virus infections, there is some evidence that it may be related to some of the human cold viruses.

Carriers

Cats are often blamed as carriers of taxoplasmosis and other diseases to other animals, and humans. True, this is a serious thing and can happen. However, common sanitation measures will prevent most spread.

It makes me feel bad when I hear cats condemned for spreading disease. A few healthy, well-cared-for cats on a farm will control rats and mice without the use of dangerous poisons, and I feel that what this does for disease control far outweighs the slight danger cats pose as disease spreaders themselves.

Internal parasites in cats become so bad at times that all the cats on a farm appear weak and pale (look at their gums) and are of little value as rodent controllers. Your veterinarian can prescribe medicine for these.

Dosing a cat with a worm pill is not as bad as it seems once you learn the knack of it. Wrapping the individual animal in a burlap bag with his head out, and pushing the pill down with a gloved finger or rubber-tipped pencil is the usual procedure. I know this is easier said than done, but remember that handling a cat is like handling a horse . . . you can accomplish a lot more if you don't bully or fight with them.

Nutrition

With cats, as with all farm animals, nutrition is important in disease control. The easiest way to provide proper nutrition is to purchase a good commercial cat food to supplement milk and a few meat scraps from the kitchen table. Good mousers and ratters will hunt well by instinct. If you have to starve them to get them to hunt, they will end up killing birds, rabbits and other things you don't want killed around the farm.

Individual cats who develop such bad habits as using the grain cart or manger as a toilet, or killing birds and game, might better be humanely destroyed than used as a reason to condemn all cats on the farm. We cannot very well criticize our summer neighbors for abandoning cats if we do the same thing with unwanted cats ourselves. If you don't want to destroy them painlessly yourself, your veterinarian will do it for you. Euthanasia is far more kind than letting them become half-starved, half-wild animals by dumping them off someplace.

I realize there are many other facts of cat care that could be discussed if we were to go into them with a view other than simply keeping enough healthy cats around to hold rats and mice in check. If you are interested in further detailed information, your own veterinarian is in a better position to discuss these things with you.

Do remember, however, that your barn cats are a valuable asset to your farm, and with the help of your local veterinarian you can give them as good care as the rest of the animals you depend on.

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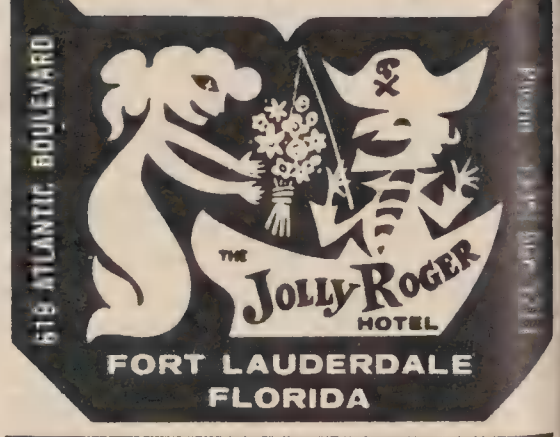
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WHITE WINS USAC SHOWDOWN. AGAIN.



The first USAC Showdown was a comparison of big tractors.
White's Oliver 2255 won. Won big. Just recently, another USAC Showdown.
This time, the comparison was with White's Oliver 1365.
The tractors were smaller, but the results the same. White wins again.

WHITE: 1ST OVER THE FINISH LINE. AGAIN.

HOW THE TEST WAS RUN.

The latest USAC Showdown wasn't a single test, but a series of comparisons—designed to inform you how leading tractors would perform for you in a variety of uses. The comparisons were conducted under the supervision of the nationally-known United States Auto Club (USAC).

All the tractors were in the 50-60 hp. class. And the line-up was impressive: Ford 4000 with 2-wheel drive, Massey-Ferguson 165 with 2-wheel drive and the White Oliver 1365 with 2-wheel drive.

A second Oliver, one with 4-wheel drive, was unofficially included in the competition, but not ranked by USAC. (Ford and Massey-Ferguson do not have a 4-wheel drive option for tractors in the 50-60 hp. class.) The results were significant, as reported after the next page.

All the tractors had break-in periods of over 50 hours each. USAC officials certified PTO horsepower, then sealed the engines and other components to prevent further adjustment.

All the tractors were equipped with Firestone 16.9-30 rear tires. The ballast was a 75-percent fill of 3-1/2 lbs. calcium chloride solution, adding 1492 lbs. to each tractor.

Additional cast iron weights were added to the tractors for plowing and disking comparisons. An additional 520 lbs. of cast iron weights were added to all tractors for loading comparisons.

	Oliver 1365 2-wheel drive	Ford 4000	Massey 165
Added cast iron wts.	1160 lbs.	1000 lbs.	820 lbs.
Total wt. as tested	7200 lbs.	7220 lbs.	7300 lbs.

White sponsored the Showdown comparisons involving plowing, disking, and loading performance. USAC officiated at all the tests. And the Oliver tractor won them all.



USAC: THEY MAKE IT OFFICIAL.

The United States Auto Club is best known for officiating at nationally-recognized auto races—including the Indy 500. But they also sanction and officiate other events and certify the results.

At an event such as the Showdown, USAC officials are in constant communication via high-powered walkie-talkies. All times must check-out exactly with all the officials (including the official that rides on each tractor).

Once the officials have the complete data, they calculate all the official results. And their findings were clear. White's Oliver is a winner in all categories tested. In plowing. In disking. In loading.

WHITE MOTOR CORPORATION



WHITE PLOWS MORE ACRES PER HOUR.



The first major phase of the comparison was conducted o farm in Iowa: The plowing test.

The field was measured and marked by USAC. T one-at-a-time, the tractors were put through their paces.

All tractors were teamed with identical plows, Oliver 508 4-bottom plow. All plows were set at 16" cut width and from 7 to 7-1/2" depth.

First, the tractors were checked for slippage by c paring wheel revolutions under load, to wheel revoluti without load. Then the plowing began under the watch eyes of USAC. The objective: To see how long it would t each tractor to plow the same amount of land—2.9 acres.

	Oliver 1365 2-wheel drive	Ford 4000	Massey 165
Plowing time	53 minutes 14 seconds	63 minutes 43 seconds	70 minutes 4 seconds
% Slippage	13.2	11.9	11.5
Acres per hour	3.28	2.74	2.43
Finished	First	Second	Third

USAC certified the results. And the win came as surprise. The Oliver 1365 outperformed its competition no wonder. The 1365 has a direct-injection, 4-cylinder di engine that can help you plow your own fields in record t



WHITE DISKS MORE ACRES PER HOUR.



nother test day, another field in Iowa. All tractors used the ame 11' 6" Oliver 263 disk harrow with 36 blades at 7-1/2" pacing, front and rear.

As with plowing, slippage is a major factor in disking ffectiveness. So slippage was checked again.

Each tractor disked 3.643 acres with quite a variance in he final USAC results.

	Oliver 1365 2-wheel drive	Ford 4000	Massey 165
Disking time	32 minutes 36 seconds	40 minutes 7 seconds	41 minutes 31 seconds
% Slippage	13.1	16.7	13.0
Acres per hour	6.70	5.45	5.27
Finished	First	Second	Third

Disking. Another win for White. Another win in one of he most important areas for tractors in the 50-60 hp. class.

WHITE LOADS MORE PER HOUR.

How a tractor performs in the field is important. But for tractors in the 50-60 hp. class, it's only half the story. Because many times they're working around the yard, too.

And one of the big yard jobs is loading manure. So comparisons were conducted in three areas of common loading situations: Open shed, closed shed, and feedlot. All tractors were equipped with Oliver loaders and identical buckets.

Unlike the plowing and disking phases of the USAC Showdown where different drivers were selected for each tractor, one driver operated all tractors for the loading test. The operator, Dick Lindaman of Charles City, Iowa, familiarized himself with all the tractors before the official testing began.

Each tractor was used to load a spreader four times. USAC weighed the individual amount loaded by each tractor in every phase of the test. They also timed each loading sequence. When the loading was completed, USAC divided the total amount of manure each tractor loaded by the total amount of time to determine the winners.

	Oliver 1365 2-wheel drive	Ford 4000	Massey 165
Number of loading cycles	27	24	26
Total weight loaded	20,020 lbs.	17,150 lbs.	17,530 lbs.
Total time	16 minutes 3 seconds	14 minutes 1 second	14 minutes 32 seconds
Lbs. per cycle	741.5 lbs.	714.6 lbs.	674.2 lbs.
Lbs. per minute	1251 lbs.	1225 lbs.	1209 lbs.
Finished	First	Second	Third

Obviously, the Oliver 2-wheel drive tractor outperformed the Ford and Massey.

First in loading: Another reason why the Oliver 1365 is the outstanding tractor in its class.

THE USAC CHAMP IMPRESSED THE DRIVERS.

All the drivers selected for the USAC Showdown live around Charles City, Iowa. They were chosen to drive the same brand of tractor they drive on their own farms, so they would be familiar with the equipment.

The man who operated the Ford 4000 diesel was Ben Smith. He owns a Ford 4000 and has been happy with it. But after the test, he was impressed with the 1365. "It's definitely a good-pulling tractor," he says.

Francis Dostal was the operator of the Massey-Ferguson 165. He runs a smaller size Massey, the 135, on his own farm. "It was a good test, a really fair test," he says. "The Oliver with 2-wheel drive looks good."

The operator of the Oliver 1365 with 2-wheel drive was Ric Miller, who runs an identical tractor on his farm. "It's great...turns short, easy to steer," says Ric of the Oliver he drove in the test. "Like my own tractor, it's got good luggin' power."

There you have it. The drivers echo what USAC proved: White's Oliver is a winner.



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4-WHEEL DRIVE. IT MAKES THE USAC CHAMP EVEN BETTER.

White is the only farm equipment manufacturer in the USAC competition to offer a 4-wheel drive option for tractors in the 50-60 hp. class.

So, a second Oliver 1365 with 4-wheel drive was also compared by USAC. Only the three 2-wheel drive tractors were ranked in the official competition by USAC. However, the performance of the 4-wheel drive tractor is shown below. You can compare for yourself how it can increase work output.

Check the evidence. The 4-wheel drive Oliver outperformed all the 2-wheel drive tractors, proving that all-wheel drive really pays its way in the 50-60 hp. class. (Pays its way in cast iron weight savings, too. 520 lbs. of weights were added for the loading sequence, but **no weights** were added for plowing or disking.)

To say 4-wheel drive makes a difference is putting it mildly.

In plowing, the Oliver with 4-wheel drive turned in a great performance—proving to have effective weight distribution with reduced slippage and increased traction.

In disking, the Oliver with 4-wheel drive again demonstrated its superiority. Less time on the job. Reduced slippage. Less soil compaction. Which should result in increased tire life and greater fuel savings per acre.

In loading, the Oliver with 4-wheel drive again outperformed the 2-wheel drive tractors in the same class. All-wheel drive traction made the difference. More pile-driving force to get a fuller bucket. Less slippage to move bigger loads.

In plowing, disking and loading—in all areas that are important around your farm—the Oliver 1365 with 4-wheel drive increases work output. Tremendously.



	Time	% Slippage	Acres per hour
Plowing	51 min., 40 sec.	8.7	3.38
Disking	30 min., 41 sec.	9.1	7.13

	No. of cycles/ total time	Total wt. loaded	Performance
Loading: Cycle Rating	24 cycles	19,640 lbs.	818.3 lbs. per cycle
Time Rating	13 min., 27 sec.	19,640 lbs.	1454 lbs. per min.

WHITE IS UP TO SOMETHING. USAC PROVES IT AGAIN.



First, the USAC Showdown at Cordele, Georgia. The Oliver 2255 teamed with an Oliver 588 plow won. Won big.

Then the latest USAC Showdown near Charles City, Iowa. White comes in 1st over the finish line with its tough, intermediate Oliver 1365 tractor.

It's enough to make anyone proud, and we are.

And it ought to be enough to let you know what we're up to: Delivering the best farm equipment your money can buy. Delivering field-proven winners.

THE NEXT TEST IS UP TO YOU.

See your White Farm Equipment dealer who sells Oliver and Minneapolis-Moline tractors, and see how easy it is to own one with the White Motor Credit Finance Plan.

Take a closer look at the new USAC Showdown winners.

Then put one to the final test. On your farm.

WHITE IS UP TO SOMETHING.

OLIVER®

MM® MINNEAPOLIS·MOLINE

White Farm Equipment Company/Oak Brook, Illinois 60521

FORESTRY

Sweet Stuff – Maybe so, but last spring saw New York sap considerably less sweet than previously, and less of it. In fact, maple syrup production this year was the lowest on record . . . a meager 225,000 gallons which is some 34 percent less than last year.

Sugar bush operators needed an average of 43 gallons of sap to make a gallon of syrup as opposed to the 30-some gallons usually required. What's more, once the syrup materialized, it was less likely to be table quality. And to top it all off, the average season only ran from March 5 through April 3. **Unseasonably warm weather** was the culprit.

Vermont fared better, topping New York's maple syrup production for the first time in five years.

Tapping Speed – By replacing the guide bar with an adapter and drill, a chain saw becomes a comparatively inexpensive and extremely fast tapping tool for maple syrup producers. However, fear has existed that the high speeds (6,000 or more rpm, compared to 400 to 1,300 rpm of specialized power tappers) might scorch or otherwise harm wood tissue and reduce sap flow, or result in oval holes that would leak.

Tests extending over three years by Cornell researchers show that tapping speed has little or no effect on sap yield. If the operator takes a balanced stance to compensate for the saw's power, he can drill straight, round, leak-proof holes, and do it faster than with any other method.

For the Birds – U.S. Forest Service researchers are finding that city folks are just as willing as their rural neighbors to encourage songbird populations. In Amherst, Massachusetts, for example, an estimated 43 percent of households regularly feed birds (mostly through December and March) and spend an average of $8.80 per year on bird feed. In Boston, average expenditure is $8.20 per bird-feeding household.

These figures are projected to mean that in the Bay State alone, close to $3.5 million is spent annually to realize the pleasure of wildlife contact in cities. This doesn't take into account the amount spent on birdhouses and feeders.

Gypsy Moth – The gypsy moth might turn out to be its own worst enemy. It seems that a latent virus is carried in the eggs of these insects from generation to generation. When the gypsy moth population reaches a certain peak, the virus goes into action and starts killing off the caterpillars.

This doesn't happen, however, until the moths are present in such overwhelming numbers that the larvae have defoliated thousands of acres of trees. Research is being conducted at Rutgers University to find some way to break the latency of the virus and use it to control the gypsy moth without disturbing other living things.

Is this trip really necessary?



Not with a Volumatic® II silage distributor-unloader on the job!

Jamesway® works so you can farm

Fast feeding and less climbing is what you get with a Volumatic II silage distributor-unloader

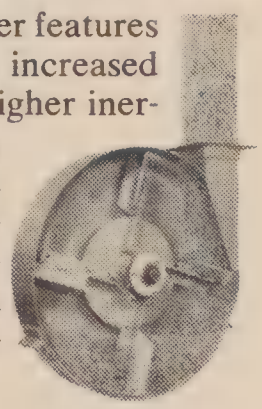
Fast feeding and fewer trips up the silo are two important reasons why more and more farmers are saving time and labor with the Jamesway Volumatic II. When you add the fact that the Volumatic II is *both* distributor and unloader, you take advantage of a unit that was designed and built to work for you all year 'round. Converts to a distributor in minutes. And being a complete silage system, the Volumatic II is the lowest cost combination on the market.

Three-point suspension gives you level cut from top to bottom

See cutaway drawing. Three separate cables keep the unit level for even cutting under all conditions (frozen or unfrozen) – it cannot tip or tilt. Compare this exclusive feature with single-cable unloaders where you must go up the silo to make time-consuming weight adjustments to keep the unloaders cutting level.

Exclusive 26-inch impeller gives you big herd feed-out

Big capacity impeller features 4-blade design for increased throw power and higher inertia to resist wads and jams. Here's efficiency that delivers higher volume without extra conveyors, throwers or kickers.



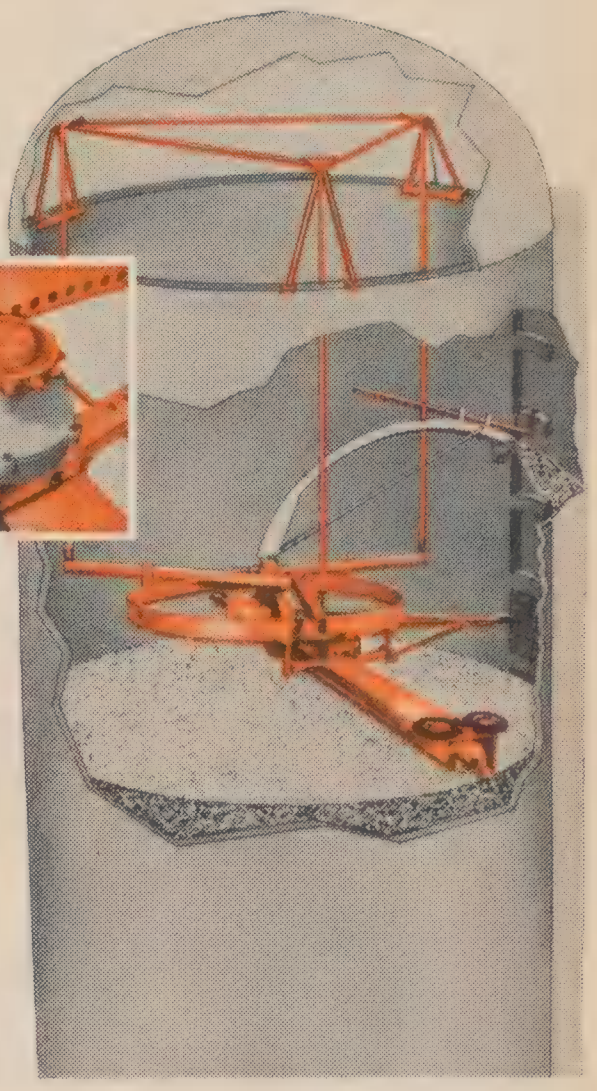
Power ring drive has no drive drum to manhandle

Most other unloaders are driven around the silo by a drive drum that turns on the silage and depends on it for traction. This can result in surface spoilage and more climbing up that chute to manhandle the drum. Power ring drive runs on a track up out of silage (it does not use silage surface for traction). This means fewer trips up the silo and less surface spoilage. And it means you can even unload shelled corn. Heavy-duty drive ring and rugged sprocket teeth (slip-clutch protected) assure positive power and more torque.



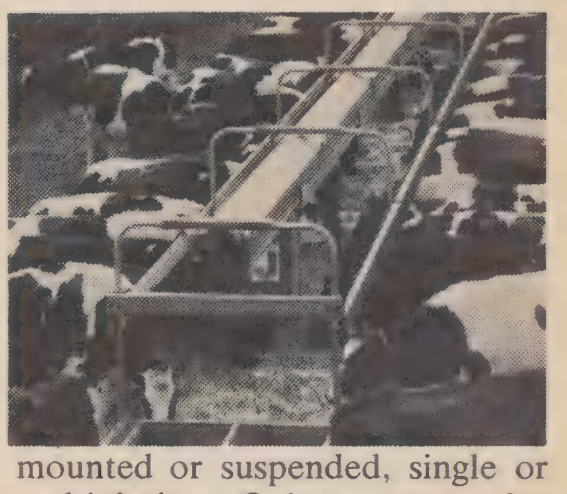
But don't take our word for it – ask a neighbor who owns a Jamesway

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Let the Volume-Belt® Cattle Feeder "belt it out" quietly for fast feeding without separation

High capacity for big herds. No separation because feed's belted out, not dragged by a chain. Uniform distribution – all feeds, to all cattle. Simple low-maintenance design. Stationary drive for efficiency. Heavy-gauge galvanized weather-safety hood. Double-bonded, 2-ply nylon belt. Use it indoors or out for stanchion or free stall, barn or feedlot, bunk-



mounted or suspended, single or multiple lots. Only way to go for fast, quiet, big volume feeding.

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104 West Milwaukee Avenue
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SPEAK UP FOR FARMERS

And it is just about time we did! I wonder how many of our city neighbors know how few farmers are feeding this great nation of ours.

Do you have any idea how many of us are giving up farming each year and why? You might be surprised at the percentages if you can take time out from accusing us of gouging the public, etc., and look up the figures.

We are grape growers and I would like you to know what we do in the vineyards so you can have grapes on your tables and in your bottles. They do not just grow like Topsy.

To begin with, grapes are a year-round job and the fun begins again right after the harvest when the vines go dormant usually early November. We first prune them and pull off the old brush, which is no mean feat on a cold winter's day. This job usually takes most of the winter.

Spring

When spring comes, we get right out there and drive posts, tighten the wires, tie vines to the trellis, put layers down, weed control, fertilize, etc. We don't really get our backs straightened out before it's time to sucker the little devils . . . and, after a half-day of being down near the ground looking up into your own face, if you can straighten up, you're either awfully lucky or awfully young!

At the same time, we are spraying for dry rot, mildew and several kinds of creepy crawlers. Another added attraction about this time is the straw tying or tucking up which is now done mostly to young vines.

September 1 will find us looking the harvesting situation over. We get containers out and try to scout around and find some grape pickers. Promises, promises, promises . . . and we may end up with five when we need fifteen. Sure, the grape harvester is a wonderful invention, but unfortunately we still pick by hand.

All hands are on deck to begin the harvest . . . a seven-day week and ten to twelve hours a day. Any social life is just forgotten as grapes are perishable and our only crop. If we are lucky, we'll meet our schedules and just maybe have a little of that green stuff left to start the whole process all over.

Why?

Why do we hang in there? I guess we are just stupid. We like the out-of-doors, the beautiful birds and animals that come almost to our front door. We think it is a good place to raise our family.

We are not getting high prices for what we produce, and our costs go up every year. Somewhere in the middle there is something wrong. So that is why we pray for an average crop with no hail, no frost and no more Agneses, and that we may raise our families in some kind of dignity and meet our obligations to God and man.

I think it is just about time the farmer came into his own, not classed as the forgotten man. We try to live like other human beings with comfortable homes and surroundings, do our civic duties, educate our children and give them the advantages of their city cousins.

We like to live, too, and be accepted as equals . . . not some monster out to gouge the public. — *Mrs. Madelene D. Kelly, Penn Yan, New York.*

THE PLUS SIDE

We can proudly point to many areas of Grange accomplishments and the evidence of Grange work at the national, state, county (Pomona) and subordinate or community level. Many communities are better today because of the unified action of the Grange. The Grange hall, too, has been the central and vocal point of the community in many areas.

I come from a county in Pennsylvania where the Grange is **not** in trouble, but very active. My own subordinate Grange has a membership of more than 600 from all walks of life. There are 13 subordinate Granges in my county, 10 of which own their own halls valued at many thousands of dollars . . . halls we can really be proud of, some of the latest design. Our county showed an increase in membership the past few years.

You ask, "How can the Grange gain a new lease on life in these changing times." Here are my opinions:

First, we need to train young people for leadership roles. We need to encourage that leadership at both the subordinate and Pomona level, and point out to them the prestige that the Grange has enjoyed in the past, and its accomplishments. They must be able to tell the story that we are not only a farm organization, but that we have a broad legislative policy, which has helped not only farmers, but non-farmers over the years.

Let us remember that our actual farm population is now less than four percent. However, many people are connected with agribusiness while all people have a concern for food and the future of our children and grandchildren.

Problems

One of the real problems I find is in Granges where the same leadership has been in office for years; this is not good. The Granges that have a time limit on holding an office are the most progressive.

Too, the Grange hall should be a modern building that has all the conveniences of the modern home. As members and residents of a community, we need to have pride in our Grange hall.

The Grange must adapt itself to the needs of the present-day community. We must forget the idea of meeting on the third floor of a building with shutters closed, shades drawn and the door locked trying to impress on people that we are a secret organization. The Grange has a beautiful ritual, but it is important that we let the news media know we are not a secret organization.

If the Grange is to survive, we must get rid of some of the "shackles" you mention. I think you are saying that **we just can't live** in the horse and buggy days.

We must change to the jet age, give our young people opportunities, let them do their thing. Summing it all up, I think the success of any Grange involves good leadership, a change of leadership, well conducted meetings, activities, and greater involvement of membership.



TWO FLAGS

Every day, weather permitting, our United States flag and our 4-H flag are flown at the top of a 20-foot pole in front of our 120-year-old farmhouse.

We fly the national flag because we love this country, and we believe in America. We love freedom to speak out with our beliefs; we insist on freedom of religion, freedom to go where we please, and freedom to do as we please.

We know this to be the greatest, finest country in the world. We proudly take our hats off and place our hands over our hearts as Old Glory passes by in any parade. As 4-H leaders, we teach our 76 members respect for the American flag and for what it stands.

The Best

We fly the 4-H flag because we know 4-H is the best youth organization in the world. As 4-H leaders for 12 years, we have seen shy beginners become poised, self-reliant citizens in today's troubled world. We have seen successful marriages among our members; also gainful occupations have come from the many 4-H projects we offer.

We teach our 4-H members respect for each other, for their parents and their leaders. Sometimes we would like to quit being leaders, but when that first-year member tells you that she learned to make better brownies . . . or that he enjoyed conducting games for the picnic to entertain 21 mentally-retarded youth . . . you get that well-known lump in your throat, and blurry eyes, and you say for another year, "We'll be glad to!"

May we never forget these lines, "God of our fathers, be with us yet, lest we forget, lest we forget."

So . . . let's stand tall when Old Glory passes, and stand taller when we hear of 4-H. We pledge: One nation under God, for our club, our community, our country, and our world. — *Mr. and Mrs. Louis Baker, Diamond Acres Farm, Beallsville, Pennsylvania.*

The Song of the Lazy Farmer

Whene'er Mirandy finds some dust in any room, she thinks she must go oe'r the house from stem to stern; she'll get wrought up and overturn the whole place so that not a speck of dirt is left in sight, by heck. She beats the rugs and mops the floors, she sweeps clouds out of all the doors, she never stops until she can be sure the house is spick and span. It's nice to have things clean and neat, but she should take time out to eat, or cook for me, at any rate; I'm tired of sitting with my plate upon the steps where I must hunch down o'er a cold and tasteless lunch.

I'd rather have a little dirt upon the floor than have to flirt with cruel starvation just 'cause she is too worn out at night, by gee, to cook me up a sirloin steak with lots of spuds and choc'late cake. If she don't worry 'bout my heft, she might find there is nothing left but skin and bones, then she'll regret that she did not take time to get the kind of meals that I must eat to keep me strong and on my feet. If I collapse, she won't have time to worry much 'bout dirt and grime, and she'll no longer have the fun of yelling when my work's not done.



(Left to right:) Robert and Bill Titus. Agway free-stall barn in background was built in two sections and Agway silos added one at a time to meet their needs for expansion.

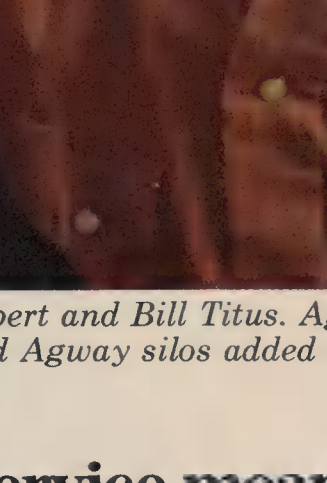
"$98 additional profit per cow, per year. That's what Agway Dairy Enterprise Service means to us!"

Robert and Bill Titus, father-and-son partnership, farm 140 acres near Windsor, N.Y. They crop about 90 acres, with another 50 in improved pasture. Their herd averages 126 cows, with 62 milking. It wasn't always that way. As Robert Titus puts it:

"When Bill came into the operation, it was obvious that we had to begin making more milk from the same number of acres. One of our first moves was to switch to free-stall barns and a milking parlor. Agway helped us all along the way . . . with designs and building. And they helped us get credit for our first free-stall barn."

"What the new barns and parlor really meant," adds Bill, "is that we could double the size of our herd without doubling the labor."

"Sounds simple," says Robert, "but another big move was to put our cows on Agway Liquid Protein Supplement, fed free choice. When we saw how much LPS they were consuming, we started talking to Enterprise Salesman Tom Redmond about our whole feeding program. And that's how we got onto the Agway Total Dairy Ration Profile.



Tom Redmond, Agway Dairy Enterprise Salesman, works closely with the Tituses on every phase of their expansion program.

"After a few months, things really started happening. First thing we noticed was that our fresh cows were peaking earlier . . . and higher."

"And they've been sustaining longer," continues Bill. "As of now, we're getting an extra $98 per cow per year, income over feed costs—and this is clear profit."

Agway Dairy Enterprise Service is the blending of a farmer's resources with Agway resources in the best combination to increase profit for the farmer who wants to get the most from his management effort.

Why not find out what it can all mean to you? Call Agway today.

Farm Enterprise Service AGWAY



Ed Wolfe takes an order for eggs in the office just off the grading room.

EGG LINE

Edmund Wolfe and his family operate a poultry farm on the road between Milan and East Smithfield, Pennsylvania. The family (in addition to Ed) includes Ed's wife Rene, and children: Larry, a senior taking business administration at college; Nancy, 18; and David, 15.

There are 105,000 layers in the operation . . . 82,000 housed in two major buildings. One has full stair-step cages, and holds 32,000 birds. The newest building is 44 by 450 feet, has cages in a triple-deck arrangement, and holds 50,000 layers. Another wing of the building complex is 40 × 200 feet and holds 23,000 hens.

"I'm not sold on the flat-deck houses," Ed comments. "With our setup, the egg belts and other working parts are all easily accessible . . . which isn't the case with the wall-to-wall cages."

Cleaned

Droppings are cleaned out daily from the pits under cages. In order to reduce both odor and manure volume, the Wolfes are placing fans blowing into the pit . . . each powered by a ¼-hp electric motor, and each cast-aluminum fan a four-bladed type.

Eggs from the two big houses move by a series of belts and cross conveyors directly to the grading room. Here, Rene helps supervise the grading process, and works in the "voting machine" of the candler. It's an Egomatic setup with a capacity of 80 cases per hour, and operates four hours a day (8 a.m. until noon) seven days a week.

"I prefer the bigger machine to a 40-case one," Ed remarks. "The employees who operate it prefer working half-days grading, too."

Salesman

Ed is chief salesman, and reports outlets to include Agway, local stores, jobbers, a few buyers who are selling door-to-door, and some retail sales at the farm. The Wolfes have their own labeled cartons, but also pack in cartons with private labels of others. New York City is considered to be a market of last resort only . . . producers just being too much at the mercy of shrewd buyers.

"We think our size enables us to supply local outlets, plus having the volume to interest major marketing concerns," Ed comments. "It seems to me that the 10,000-bird producer can find local markets to service . . . but the 50,000-bird producer may have problems. He's too big to depend on local purchasers for most of his volume, and not big enough to interest buyers of consistently large numbers of eggs."

Have recent sky-high prices for poultry feed changed feeding patterns? Ed answers, "Not much, although we have cut older birds to a lower protein level (15 percent) a bit earlier in their production cycle than in past years."

Rearing

The Wolfes have a cage-rearing building for pullets (32,000 at a batch) . . . and two older laying houses have been converted for growing pullets. This enables them to grow all their own birds, except for 18,000 a year.

The farm is incorporated; Ed and Rene are the sole stockholders. "It offers the advantage of limited liability," Ed comments. "The way this egg business goes in boom and bust cycles, it's important to insulate the business from the family home so the family at least has a roof over its head even if we go through the financial wringer.

"There are also some potential tax advantages . . . assuming we make some money in the egg business after that long dry spell. And, the children can easily be brought into the business by issuing stock . . . more flexible than would otherwise be the case."

Ed worries a bit about the influx of non-farm money buying land in this very-rural area. Prices of land are rising rapidly, and acreage for manure disposal could become sharply limited. So far, though, the Wolfes and their farm neighbors have had enough acreage for recycling poultry manure through crops. — *G.L.C.*

AGWAY FARM ENTERPRISE SERVICE

AGWAY

Don't get caught in another fertilizer bind next spring...



ORDER NOW,

FOR IMMEDIATE DELIVERY,

AND SAVE UP TO $6 A TON!

Fertilizer has been very tight this year and, as of now, prospects for 1974 don't look much better. A developing shortage of natural gas (the raw material of ammonia production), declining phosphate manufacturing capacity and increased foreign demands may have serious effects on the available domestic supply.

So this year, more than ever, it's wise to order your fertilizer in advance and store it on your own farm. That way, you're assured of the fertilizer you'll need this fall or next spring and you'll also pocket substantial savings by taking advantage of Agway's new fall discounts.

Here's how the discount works. If you order between September 17 and November 17, 1973, you save 12¢ per unit on mixed grades. A 6-24-24 fertilizer, for example, adds up to 54 units. At 12¢ a unit, you save over six dollars per ton. And there are comparable savings on bulk blends. What's more, you can delay payment until April 1, 1974.

In addition, any fertilizer you store on your farm through June 30 will be replaced if lost due to fire or to water used in fighting fire. And you're sure of having fertilizer on hand when you need it.

For the maximum discount, figure your requirements and place your order now. Your Agway Enterprise Salesman will be happy to help you calculate your needs.

LONGEVITY

Donald Arthur farms on the edge of Laceyville, Pennsylvania. Because of chronic allergies that trigger asthma, he's had to make some management decisions over the years that would help protect his health.

One of these has been feeding hay-crop and corn silages for the past 15 years as nearly the only roughage to his milking herd (he's allergic to dry hay). Dry cows, though, are fed mostly dry hay with only a little silage.

How has the high-silage diet worked out at Braintrim Farm? Well, Donald has a present rolling herd average of 14,954 pounds of milk, 600 of fat, on 71 cows. He's raised registered Holstein cattle since 1936, and has won the Holstein-Friesian Association's Progressive Breeder award 22 times.

The herd has had nine Gold Medal dams, nine cows producing 1,000 pounds of fat in one lactation, three producing 200,000 pounds of milk in a lifetime, and 38 producing 100,000 pounds.

He credits tie stalls as helping with longevity (as contrasted to stanchions) . . . plus strong bloodlines and careful attention to herd health. — *G.L.C.*

DIVERSIFIED

Donald Kent and his son Tom operate their 1,300-acre farm near Andover (Allegany County), New York . . . and rent 100 more acres to supplement their own. Major crops include potatoes for certified seed (125 acres in 1973), oats (about the same acreage) for the same purpose, and Christmas trees wholesaled to buyers as far away as Tampa, Florida. Most of these are sold at the roadside, or delivered, but not on the stump.

Last year, the Kents sold 23,000 Christmas trees . . . have planted about a quarter-million trees on the farm since 1941. Varieties include Scotch pine, Austrian pine, white spruce, Colorado blue spruce, and Douglas fir.

Planted

"Our available land is pretty well planted now," Don comments. "At one time, though, we harvested seed and grew our own seedlings . . . up to 75,000 per year . . . for our own use, and for employees who were also planting trees." Scotch pine seedlings are planted in rows nine feet apart, with slower-growing trees interplanted between the rows.

"We figure 8 to 12 years from planting to harvest on densely-pruned Scotch pine," Don comments, "and 12 to 20 years on spruce and fir. We don't think we're making a bushel of money on trees, but it is a way to use land not suitable for grain or potatoes. The trees help provide productive work for our two full-time employees, and create land areas that may someday be valuable for sale to folks interested in land for recreation."

Tom helps supervise the crew of 20 to 30 high-school youngsters who prune Christmas trees each year . . . pine from about July 4 to August, and then spruce and fir. "We like to start 14 or 15-year-olds," he comments, "so they can be with us a few years."

Training

The Kents train the trimmers carefully . . . start by explaining charts, then conduct demonstrations and have an experienced trimmer with each small pruning crew. Standard equipment are hedge shears and kitchen knives (the kind used on roast beef, 14 inches long and 1¼ inches wide). The shears handle heavier cuts, and the knife is for shearing succulent growth toward the treetop.

Trees require lots of seasonal labor, but the seed-growing business is pretty well mechanized. All oats are intended for certified seed, grown on potato land in a three-year rotation (potatoes-oats-clover).

"We use a drill with hoes eight inches apart, instead of the standard seven," Don comments. "We think this gives us larger kernels, and gives the clover seeding a better chance.

Astro Oats

"In 1972, we sowed 45 bushels of Astro oats on 46 acres, but it should have been 25 acres. Our rule is sowing not more than two bushels per acre for growing seed . . . it seems to us that 2.5 to 3 bushels per acre hurts the companion seeding, encourages lodging, and runs up the cost of seed unnecessarily." In 1973, the Kents managed to get a few bushels of Dal oats from Wisconsin for increase, this variety reported to be higher than usual in protein.

Seed oats are sold under the "ELK brand," as are seed potatoes (E.L.K. are the initials of Don's father, now 74). Spuds get 1,400 pounds or more of 10-20-20 fertilizer per acre, plus an intensive spray program to control disease-vectoring bugs.

"The critters that carry potato diseases from one plant to another seem to develop resistance pretty fast to any one pesticide," Tom comments. "And if they aren't

(Continued on page 19)



Donald Kent (left) and son Tom in the seed-oat bagging room.

AGWAY FARM ENTERPRISE SERVICE AGWAY

Field-store your P&K now for maximum savings with delayed payment

Applying your P & K now pays off in more ways than one. It frees up valuable time, labor and equipment for planting work next spring. It also lets you take full advantage of Agway's fall discount (described above). But, even more important, you're sure of getting the P & K you need. The easiest way to get your P & K down early is with Agway's spreader service.

And don't forget the lime-the biggest profit builder for growers

If your fields aren't in a pH range of at least 6.2 to 6.5, you're losing production from every acre. And, if you haven't limed in the past two years, odds are high that your fields are not in this range.

Adequate liming puts nature on your side in the battle for production. It brings your soils up to their most productive level and helps your fertilizer investment work even harder. It's a guard against crop failure, and a boost for effective weed control. And it adds all-important protein to your alfalfa cuttings.

Take the time to soil-test now. Your Agway Enterprise Salesman is ready to help you. So you'll know exactly where you stand and just what's needed to bring pH up to the full-profit level. Ask your Farm Credit man about the use of intermediate credit for corrective liming. Many of them look upon corrective liming as a capital improvement and are ready to extend credit so you can spread the cost over the three to four years it takes for limestone to become fully effective.

Now's the time to start your "Fall Lime Up."

Diversified . . . . .

(Continued from page 19)

knocked down, they'll wreck us with diseases like leaf roll. A table-stock grower can tolerate levels of infection that would knock us out of seed certification.

"Last year, Monitor kept us out of trouble, but we need new pesticides coming along periodically . . . each one seems to be effective for only 2-5 years. We've seen quite a list come and go over the years as resistance develops in the insects."

The principle of competitive advantage is important in the success of any farm. The Kents have several things going for them . . . high elevation conducive to good seed potatoes, and isolation from other disease-bearing spuds . . . as well as the management capacity to grow certified seed.

"I don't think we could make a living growing grain for feed and potatoes for table stock," Don comments. — *G.L.C.*

NEW BARN

Within the last year, Ralph Allen of New Berlin, New York, purchased a 700-acre farm near South Edmonston . . . and built a new freestall dairy barn with 136 stalls.

It's the type commonly referred to as a "Penn-State," with a drive-through feed alley between feed bunks on both sides. "The design lends itself well to splitting the herd into four groups," Ralph comments, "but we've been using grain as a forage extender, so it's not practical to divide them at present . . . except to split out dry cows into a separate group."

He is intrigued by the concept of total mixed ration (TMR), though, and looks ahead to having four groups being fed rations with a little different "octane" levels in terms of total energy and protein, according to production level. Presently, he's feeding haylage stored in an upright silo (24×60) along with corn silage from a horizontal storage (50×100×10 feet) having a capacity of 1,000 to 1,200 tons.

The two silages are put in a feeder wagon that side-unloads into the feed bunks. "Some mixing is done with this rig as it unloads," Ralph comments, "but if we went to TMR feeding, we'd have to have a full-fledged mixing wagon."

Ralph doesn't plan on going to corn silage as the only roughage . . . believing that a combination of corn silage and haylage eliminates (or at least minimizes) a whole flock of potential herd-management problems. "The margin of error is awfully narrow when feeding just one type of roughage," he says.

Hay Fed

Dry hay is fed sparingly to the 100-cow herd . . . about four to five pounds per cow per day. "And the quality is poor this year," Ralph admits, "so the cows eat about half of it, and use the rest for bedding." He adds, "I'm convinced we have to feed dry hay to the dry cows to prevent displaced abomasum and other problems . . . even if we feed mostly silage as a roughage to milking cattle."

The milking parlor is a double-six herringbone; two men use 12 milking units equipped with weigh jars. The only heat in the insulated parlor comes from electric heating cables buried in the concrete floor.

The roof decking of the freestall barn is formed by homasote, above which is the metal roofing finished with baked-on enamel. The homasote, plus the ventilation openings at eaves and peak, have so far prevented the condensation that causes "inside rain" in some freestall barns.

Short Stalls

Stalls are three inches shorter than in the barn where the Allens farmed before in Greene County, New York. Present ones are 7'3" long. The feeding-bunk fronts (toward the feed alley) are formed with unmortared concrete block, held in place by filling the cores with concrete. Beds of freestalls are earth, bedded with poor hay and sawdust.

An unusual sight here is a three-phase 50-horsepower electric motor to operate the blower for filling silos. Three-phase power is available, and larger motors are all of this type. A compensator allows the big motor to get up to speed without blacking out the neighborhood. — *G.L.C.*

PRODUCES FEEDERS

Leland Schroeder, who farms on the Briggs Road northwest of Penn Yan, New York, has about 125 sows. His schedule calls for four or five of them to farrow each week during more than half the weeks of the year . . . but, as with all farmers, the program doesn't always work out as planned. Leland reports a bunching-up of farrowings in the spring of '73 that severely crowded his farrowing facilities.

He sells feeder pigs, doesn't grow out any market animals. Generally, buyers want 'em at about eight weeks of age when they're 35 to 40 pounds in weight. Some go to the feeder pig sale at Caledonia, New York . . . most of the rest are purchased at the farm by farmers who'll feed them out to a market weight around 225 pounds.

Growing

"We have a growing number of people wanting to buy just four or five pigs to raise for home-grown pork," Leland comments. He also sells a number of roasting pigs each year to be cooked without cutting up.

He purchases all his feed except for the wheat he produces on 25-30 acres. Gestating sows run on pasture, but are hand-fed every day so Leland can watch them carefully . . . and put them in the farrowing house when udder development indicates.

Gilts are saved from litters farrowed on the Schroeder place, but all boars are purchased. Major breeds include Duroc, Black Poland China, and Yorkshire . . . plus a few Landrace and Berkshires. Leland reports an average of 9.5 pigs weaned per litter and two litters per sow per year.

Biggest potential disease problem

AGWAY FARM ENTERPRISE SERVICE AGWAY

For bigger corn yields next year, start shopping on this page.

Right now, when everything is still fresh in your mind, it's a good time to take a look at how some of your crop decisions turned out in '73. And a good place to start is in your cornfields. Could you have achieved higher yields? Did the hybrids you planted turn out as well as you hoped? Maybe you'll find the answers on this page.

Agway is continually testing and evaluating new corn hybrids. And keeping a sharp eye on some of the older ones. Here's how the picture shapes up for '74 with the Energy Kings—Agway Hybrids:

A NEW full-season hybrid: Agway 834X.
Excellent production potential and broad adaptability. Long, tight husks give ears good protection against weather and birds. It produces a medium-sized ear on every plant, relatively low-placed for a late hybrid. Highly recommended for silage and grain. Maturity range: 119 to 129 days (silage/grain).

Extremely uniform with medium-low ears: Agway 725X.
In one-acre trials on six farms last year, yields averaged 113 bushels with only 1.7% lodging. Smallish ears have excellent husk cover to protect against birds. With its very good rating on standability, Agway 725X may be planted at slightly higher rates with resulting higher yields. Maturity range: 110 to 120 days (silage/grain).

A "special cross" hybrid: Agway 393S.
From Maine to central Pennsylvania, this has been proving itself for superior standability, excellent disease resistance and grain yields. Large ears, well covered by deep green husks, are carried midway on the stalk. Husked ears are uniform with deep kernels. Maturity range: 90 to 100 days (silage/grain).

A truly outstanding performer: Agway 590X.
Offers a tremendous yield potential with a high of 37 tons of silage and 235 bushels of grain per acre. Rugged, medium-sized stalks with excellent standability. Develops an above-average ear on each plant, even at high populations. A "must" for every farm in its range. Maturity range: 96 to 106 days (silage/grain).

New star for short-season areas: Cornell 110.
Vigorous early growth with above-average tolerance to cold soils. Good yields for short-season areas. Maturity range: 72 to 82 days (silage/grain).

Earlier hybrid with yields of over 100 bu./acre: Agway 151S.
Produces extremely high-quality silage. Medium-sized blocky-type ears are relatively low on stalk. Maturity range: 70 to 80 days (silage/grain).

Big, rugged—with superior yield potential: Cornell 407.
A new hybrid with improved standability and superior seedling vigor. Excellent for silage and grain. Maturity range: 88 to 98 days (silage/grain).

A good-sized ear on every stalk: Agway 595S.
Excellent standability and seedling vigor and growth. Widely adapted for silage and grain. Maturity range: 94 to 104 days (silage/grain).

Excellent standability with high silage yields: New Cornell 565.
Uniformly tall plants with ears carried well up on the stalk. Wide, deep-green leaves. Maturity range: 95 to 105 days (silage/grain).

Equals or outyields the best in its group: New Agway 840X.
A medium-tall, uniform plant with large ears carried midway on rugged stalks. A "must." Maturity range: 112 to 122 days (silage/grain).

A truly superior, long-season hybrid: Agway 909X.
Strong stalks keep growing after the others have quit for the year. Outstanding. Maturity range: 125 to 135 days (silage/grain).

Ask your Agway Enterprise Salesman for the new descriptive folders telling all about the hybrids above and others. Then let him help you select the ones that will challenge the best you've ever grown . . . the Energy Kings from Agway.

is TGE (transmissible gastroenteritis) . . . a villain that killed a lot of small pigs at the Schroeder farm one year. "I spread manure from the infected area so all the sows were exposed," he comments. "That way, the pregnant sows got the disease . . . which doesn't affect them very seriously . . . and developed antibodies that protected the pigs they farrowed later."

He does not feed low levels of antibiotics as a routine health measure, but does do so if he must "stack 'em up" . . . crowding a lot of pigs into limited space. Sows are routinely wormed just before farrowing with Atgard in the feed . . . and routinely receive vaccination shots for leptospirosis and erysipelas before being bred. Leland is pretty much his own veterinarian. — *G.L.C.*

MOUNTAIN SYRUP

Cleveland Russell and son Rexford operate a farm near Rome, Pennsylvania, that has been in the Russell family for six generations. In fact, Daniel Russell first made maple syrup on this farm in 1796!

Division of responsibility leaves Cleveland calling most of the shots in the syrup business, and Rexford at the dairy barn (25-30 milkers) and dairy-veal business. A recent barn fire put a temporary crimp in the veal business, but it will be underway again soon.

The Russells made 3,300 taps in 1973, but only got "half a crop" of 650 gallons of syrup in a poor year. Sap flows through plastic tubing in a closed system; Cleveland reports the intention to experiment with drawing a vacuum on part of the tubing system next year.

Tapping is done with an electric tapper, usually starting in February. First step is to lay out plastic lines, transported in the woods by an all-terrain vehicle that drives on all four wheels.

Rental

Cleveland reports that a common rental figure is 10 cents per tap . . . up to 15 cents if the location is especially good. However, he reports only a very small percentage of sap coming from trees not on the Russell property.

The boiling house is called the "Endless Mountains Cabin," and it's a sight to behold! It has a concrete floor, stainless steel boiling pans with aluminum hoods, and spotless equipment to process the hot syrup. Translucent panels in the roof make the sugarhouse unusually well-lighted.

Sap is stored in a 3,000-gallon outdoor storage tank near the boiling house. The next step is a 5×10-feet boiling pan through which the sap moves toward a second boiling unit . . . this one also 5×10, but with a 2×5 syrup pan at the front of the evaporator. Both units are fired with No. 2 fuel oil. The system's capacity is removal of 240 gallons of water per hour . . . all going up two stacks to the outdoors.

An automatic draw-off, actuated by temperature of the boiling syrup, removes syrup at just about the right stage. A final finishing pan, fired by bottled gas, puts the ultimate touch on the boiling process; the test here is for density with a hydrometer.

Filter

The next step is to pump syrup through a pressure filter where every speck of sugar sand is removed. Finally, the still-hot nectar of the gods ends up in an insulated canning tank with handy dispenser handles that makes canning so much simpler than pouring from containers.

"The three most important changes we've made in recent years involve steam hoods over the pans, automatic draw-off, and the pressure filter," Cleveland says.

The sugarhouse is convenient for visitors, and they flood the place on weekends in March. As many as 150 school children have visited on organized tours in one day. The Russells encourage such visits, knowing that it's a great way to advertise their product.

There is a salesroom . . . and a processing room for maple sugar . . . at the Russell home (maple cream is made at the boiling place). All table-grade syrup is retailed at the salesroom, but commercial-grade syrup is sold in bulk lots to professional buyers through a marketing program sponsored by the Endless Mountains Maple Syrup Association. — *G.L.C.*



Cleveland Russell demonstrates the use of an insulated tank for canning syrup. Pressure filter is in foreground.

AGWAY FARM ENTERPRISE SERVICE

AGWAY



Isn't it time you took another look at around-the-barn pipelines?

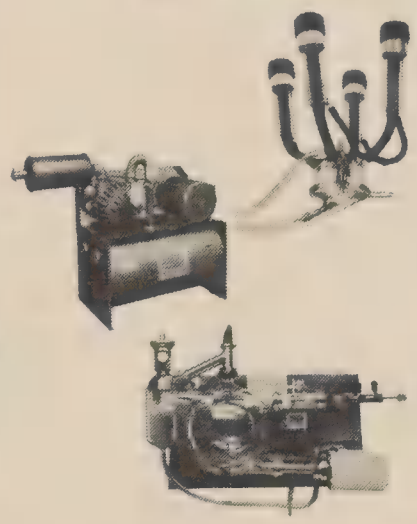
Twice each day, there's that long string of cows waiting to be milked. And even if you have help, there's a lot of time and labor involved in getting the milk into the storage tank.

An Agway around-the-barn system reduces that labor, saves some of that time, and makes that twice-a-day chore much easier. Just plug into the pipeline at each stanchion and that's it. Your milk is pumped into the bulk tank *automatically.* It gets there faster—and cools down fast to hold its quality.

No expensive rebuilding or remodeling. Agway has designed and installed hundreds of around-the-barn systems to fit most every barn situation.

Invite an Agway Farm Systems Specialist to take a look at how an around-the-barn pipeline system could fit into your setup. He'll show you what can be done, how it can be done, what it would cost and what it could mean to you and your family.

Three ways to improve a milking system



Cut milking time with the gentle Sta-Rite Full View Milkers. You can see the flow, watch each quarter milk out, reduce the danger of overmilking and its profit-robbing effects on herd health.

Replace an erratic or noisy vacuum pump with a Sta-Rite Full-Vac unit. It assures stable milking vacuum for fast, complete, gentle milking that's easy on udders. **And these units are really quiet!**

Install a Sta-Rite 900A Series Milkhouse Panel. It comes ready to connect to your pipeline and vacuum supply. Handles up to eight milkers. Switches instantly from "milk" to "wash" for fast, thorough pipeline cleaning.

What's NEW in the FIELD



Fall harvest of alfalfa

By Dr. Bill Pardee*

FALL growth on alfalfa fields can look mighty tempting, particularly if your hay supplies are short. Yet generations of agronomists have warned against fall cutting, noting that crop plants use this period to store away food reserves in their roots for over-wintering.

But conditions change, and so do our cropping practices. New varieties have more get up and go than those of the past. These are better fed, as more farmers top-dress alfalfa with fertilizer. Weed control has also improved, so stands are generally thicker and better established. All this adds up to alfalfa crops with more zip than those of a decade ago.

Noting these facts, Dr. Bob Seaney, Cornell agronomist and forage specialist, recently set out to study a number of fall management systems to see if, how, and when we could do more fall cutting. His results are now in and they suggest that we **can** cut alfalfa in the fall without hurting stands, **providing** we follow certain precautions.

Similar studies have just been completed by Dr. Mike Tesar, Michigan State. His results also show that alfalfa can be cut in September or October without hurting stands, if you take some care in choosing which fields to cut.

Many Northeast farmers have also expanded their experience with fall cutting recently, some without really wanting to. For the past several years, some of the best haying weather of the season has come in September, so many farmers had to harvest during this period to bolster feed supplies.

We've followed this closely to see how they made out. Some farmers took off good yields of high-quality forage with no subsequent loss of stand. Others hurt their crop badly. In the field, as well as in research trials, it seems that certain precautions are musts to keep fall cutting from reducing stands and hurting yields the following year.

Dr. Seaney underlines the need for caution in fall cutting, and suggests that you try fall cutting only on a trial basis, if you need the feed, to see how it works for you. He supplies the following tips to help you decide which fields to cut and which to leave alone:

1. Limit your fall cutting to well-drained fields with strong alfalfa growth. Alfalfa that is already under stress from wet feet (or for any other reason) will have trouble enough getting through the winter without adding a late cutting to its woes.

2. Leave a seven-week interval between your last cut and the **previous** cut. This gives the crop the time it needs to build up food reserves in its roots for late fall growth and for over-wintering.

3. Cut high, leaving at least a four-inch stubble. This will help to catch and hold snow, nature's insulator, to protect alfalfa crowns from extreme cold.

4. Fall-cut only fields planted to varieties with bacterial-wilt resistance. Late cutting puts extra stress on plants, making them vulnerable to disease attack. Saranac, Iroquois and Vernal are resistant to this disease, as are most commercial varieties. Narragansett, an older variety, is susceptible.

5. Feed your plants well with a phosphorus and potassium top-dressing; both are essential. Phosphorus is the key element in energy transfer inside the plant. Potassium plays a central role in developing winter hardiness. Well-fed plants survive fall cutting stress better than those that are nutrient-short.

Best fertilizer rates depend on your soil test and type, so it will pay you to check local recommendations. Dr. Shaw Reid, Cornell soil fertility specialist, suggests yearly top-dressing with 20 to 40 pounds of phosphorus per acre for soils that are medium to low in phosphorus content, and from 60 to 160 pounds of potassium on soils medium to low in that element.

Pennsylvania agronomists recommend somewhat higher rates for conditions in central and southern portions of that state, suggesting 70 pounds of phosphorus and 210 pounds of potassium per acre per year. Pennsylvania agronomists also suggest a fertil-

*Extension Agronomist, Cornell University, Ithaca, New York

AGWAY FARM ENTERPRISE SERVICE AGWAY

If ever there was a year to take a new, sharp look at your feeding program, this is it.

The feed cost squeeze is tight, but not so tight it can't be eased—if you have the right information at hand. And that's how Agway TDR (Total Dairy Ration) Profile can help you.

Agway TDR is a computer program that can help you pick the most efficient combination of homegrown grains, forages and supplements to achieve top production at the least cost.

TDR considers total protein, energy and fiber needs, plus calcium/phosphorus and forage/grain ratios. It provides the kind of information, and the feeding program options, that will help you and your Agway Farm Enterprise Salesman determine the most economical and profitable approach for your operation.

What to do about the feed cost squeeze

Ratio:Right feeds—right for Northeast dairy feeding programs

Selection of the correct feed is one of the most important parts of the TDR program. Agway offers, in its Ratio:Right line, a broad range of feeds and concentrates in which the ratio of energy to protein has been carefully selected to balance the kinds of forages and grains grown on Northeastern farms.

Consuming the Ratio:Right feed specified by your TDR Profile, your herd gets *only* the protein and energy needed to balance your forage and grain. You don't have to overfeed protein to meet energy needs, or vice versa. You buy only what you need to go for top efficiency and profitable income over feed cost figures.

TDR is for you

The TDR Profile is a valuable tool in pin-pointing the opportunity to improve dairy feeding programs economically. Make certain you are getting the most from your grains and forages as well as from your investment in feeds and supplements.

For a TDR Profile for your herd, call your local Agway and ask for a Farm Enterprise Salesman.

izer that will supply two pounds of boron per acre. Most New York soils have adequate boron so this isn't needed in the Empire State except in a few isolated areas.

Wherever you farm, a soil test is the best guide to your specific needs. Guessing can cost you money. But if you don't have a recent soil test and must guess, aim towards the high side on these recommendations on sandy loams; and go lower on silt and clay loams, which contain more natural potassium.

Best time to top-dress is right after your next cut comes off, unless you already have your top-dressing done for this year, (which would have been better yet). The earlier it's on the more time fertilizer nutrients have to get into the soil where crop roots can pick them up and put them to work. If you're top-dressing only once, it's ideal to put this on after the first harvest of the year comes off. Or you can, as Pennsylvania agronomists suggest, split your application and put half on right after the first cut, and half after the last cut of the year.

6. Looking towards next spring, plan **not** to harvest fall-cut fields first. Give them an extra week or so of growth in the spring to strengthen for continuing top production. Penn State agronomists suggest letting fall-cut fields reach mid-bloom in flowering before harvest next spring. When this is done, they note little or no effect on stand persistence.

7. If you are **pasturing** fall alfalfa, graze lightly, and only for a few days. Heavy grazing over several weeks can cause a continuous draw-down on root reserves, leaving the plant weakened and vulnerable to winterkill. Dr. Madison Wright, Cornell agronomist, in numerous tests, found that fall grazing killed alfalfa easily. One cut is okay, as Seaney has shown. But repeated cutting, grazing or chopping in the fall is more than the plants can stand and you risk losing your crop.

Fall-cut alfalfa can be good feed, if you get it stored in good condition. It can be high in leaf content and protein, if well harvested. However, haying weather gets worse as the days get shorter, and the weather turns cool. Medium-moisture hay-crop silage is a good way to handle fall-cut hay crops. This reduces weather risks and gets the crop out of the field quickly.

The guidelines above may seem numerous, but they are not really tough. Nowadays, most alfalfa varieties are wilt-resistant, and more alfalfa fields are adequately tile-drained. And many farmers top-dress their stands routinely with or without fall cutting.

The only real switch in our thinking is the need to leave a seven-week period between this late cut and the one preceding it. Good fall rains can bring on a field cut in mid-August and trigger lots of growth by mid-September. But root reserves won't have been stored yet . . . so the field shouldn't be cut until late September or early October, whenever seven weeks have passed. The stand next spring will benefit from your patience.

Maybe the West Ain't So Different After All

Maybe you've read about (and envied) Western alfalfa growers, particularly those in central and northern California, who normally cut every 24 to 30 days and take five to seven cuts per year. At least I have, and I've always wondered how they could do so without killing stands.

Of course, California's a long way off, with a far different climate and I've always figured that made the difference. But I recently had an opportunity to visit with Dr. Vern Marble, California agronomist and forage specialist, who is in the midst of a major alfalfa study comparing alfalfa-cutting dates. His aim is to find why California growers keep losing their stands every two or three years.

Surprisingly (or maybe not), his results show the length of stand improving . . . and yields holding level . . . when he shifts to fewer, less-frequent cuts. Best plots in his trials were those cut at intervals of 36 to 42 days, just about what we'd suggest for the Northeast. California farmers get more heat units for crop production — but it looks as though alfalfa plants still grow the same whether it's the Hudson or Sacramento Valley.

NEW ADMINISTRATOR

Thomas A. Wilson has been named market administrator of the New York-New Jersey Milk Marketing Area. He succeeds Dr. Anson J. Pollard, who retired.

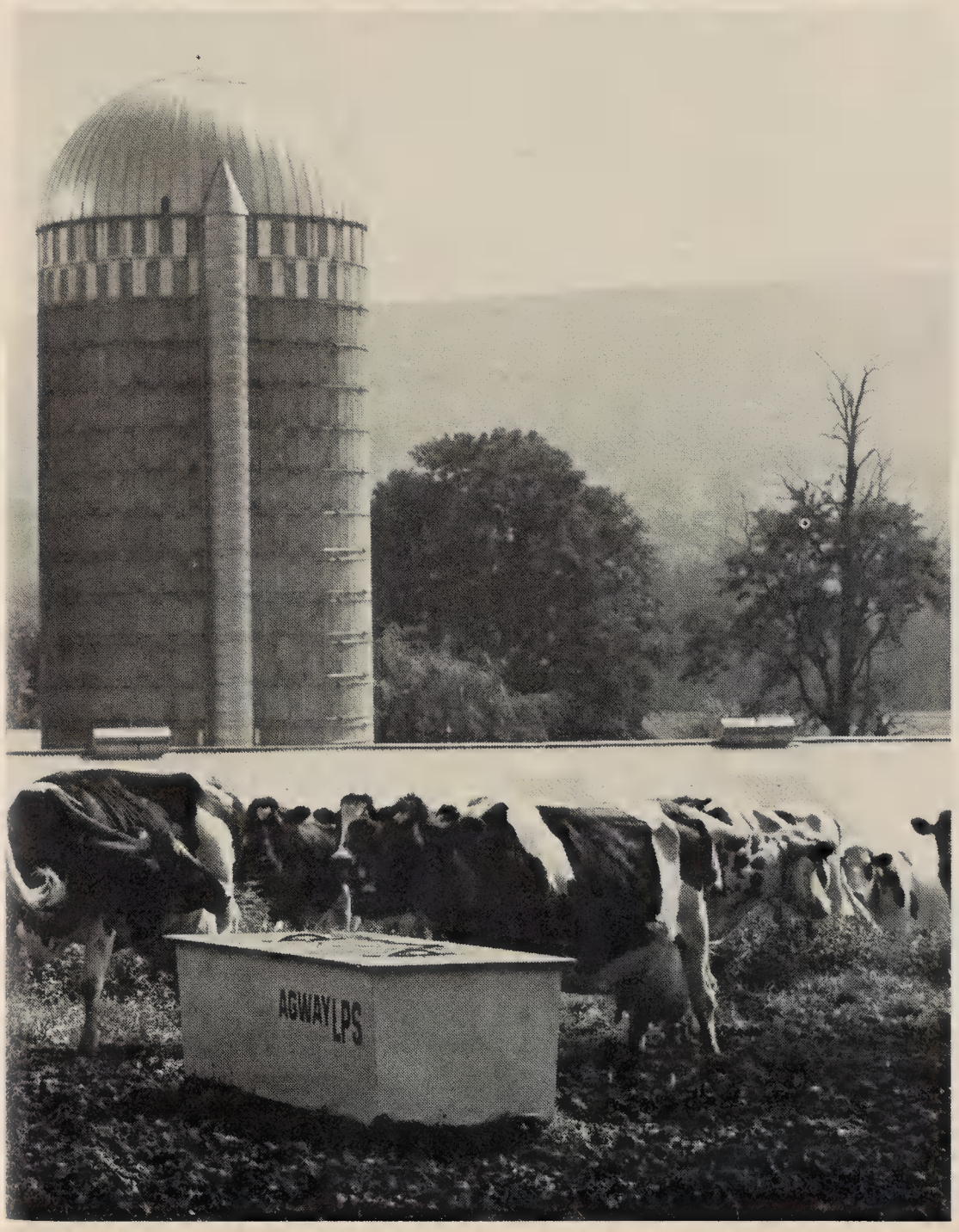

Thomas A. Wilson

Formerly the assistant market administrator, Wilson now heads the regulatory agency that administers the provisions of the largest milk marketing order in the United States, serving more than 22,000 dairy farmers producing over ten billion pounds of milk annually.

A native of Ohio, Wilson received his B.S. and M.S. degrees from Ohio State University, and is presently completing the requirements for a doctorate degree at Cornell University.


"Just smell that air pollution! It's peanut butter cookies being burned slightly!"

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You may choose to top-dress Agway LPS on forages where it actually helps to increase the consumption of low- or medium-quality feedstuffs while improving the balance of the daily ration intake.

At a time when dollars seem to shrink, consider a real feed dollar stretcher. Agway LPS. Call Agway and ask for a Farm Enterprise Salesman. He has all the facts on how well LPS can fit your operation.

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Another way you can save on feeding costs is by using a urea-containing feed. Dairy feeds in the 16-24% protein range, if formulated with urea, cost many dollars less per ton than comparable feeds without urea.

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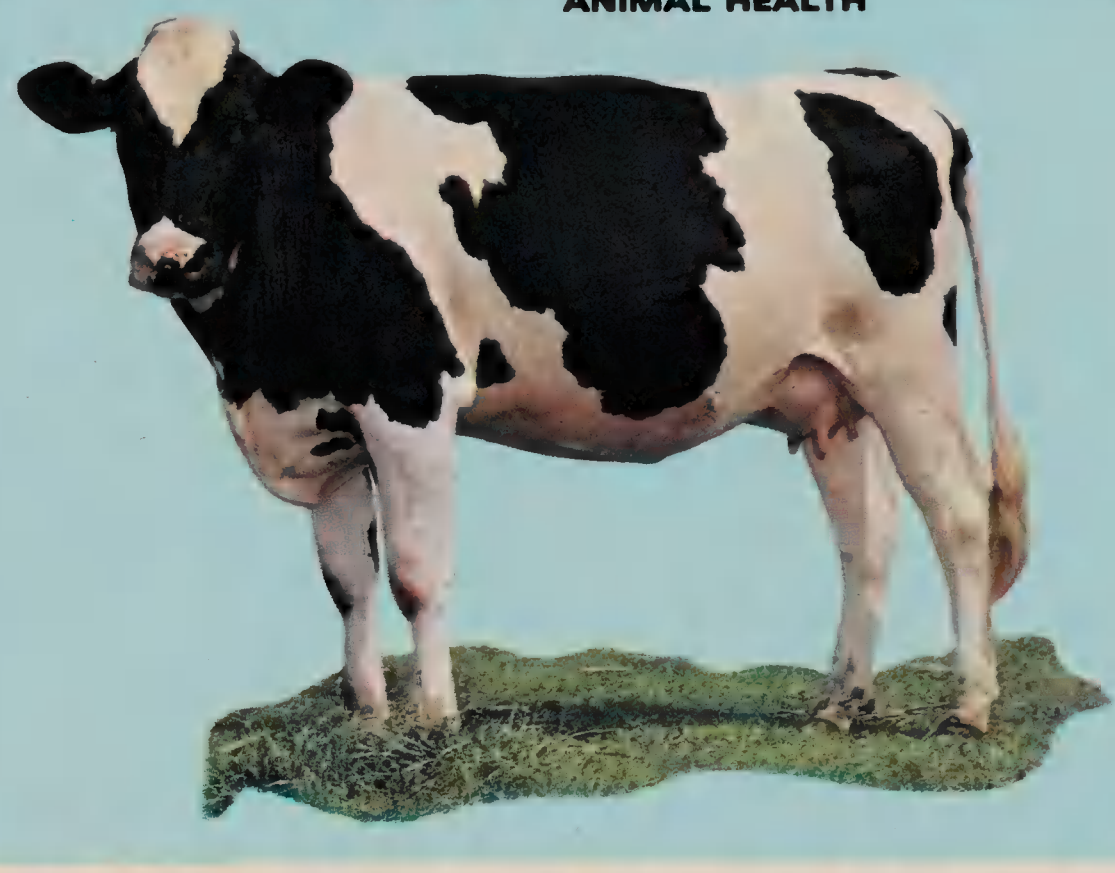
This unique formulation (U.S. Patent No. 3,557,280) produced **high, fast blood levels with less tissue damage and pain.** Comparison of injection sites in calves given Oxy-Tet 50 and other oxytetracycline injectable formulas revealed dramatic reductions in inflammation with no long-lasting damage due to the Oxy-Tet 50 injection. That's what you want . . . fast protective action!

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LIVESTOCK



New Format – The Charolais Show at the Eastern States Exposition in West Springfield, Massachusetts on Saturday, September 15, will be a new approach to breed shows. Dan Fox, New York State Extension beef specialist, and the Colonial Charolais Association with strong support of the Exposition directors, will present a program demonstrating the economic factors influencing beef prices at producer and consumer levels. A Scanogram and scales will be used as tools of the trade, and there will be a discussion of selection of beef cattle for maximum efficiency in terms of fertility, ease of calving, weaning weights, maintenance cost of the brood cow, rate and efficiency of feedlot gain, etc. These major economic factors will be related to consumer costs.

Pig Potion – In the past, livestock medicines (chemotherapeutants, in the lingo of the trade) were first developed for use in many species, and often an antimicrobial compound was tested as a candidate for therapy in animals only after it had been successfully used in humans. However, recent developments in government regulation have put the companies producing antimicrobial compounds on notice that they may be forced to produce compounds restricted to use in animals only.

Pfizer researchers have come up recently with a medication called Mecadox®, developed especially for swine, and not intended for use in treating human diseases. It's not an antibiotic, but rather a new member of a family of synthetic organic compounds classified as quinoxaline-di-N-oxides.

Tests conducted at several agricultural colleges indicate that Mecadox®, used as a feed additive, is effective in controlling infections of swine dysentery and salmonellosis.

Crossbreds – A letter from Heather Thomas, Box 215, Salmon, Idaho 83467, tells of crossbreeding Hereford bulls on Angus cows . . . with results even better than the more common practice of using Angus bulls on Hereford cows. She reports no serious calving problems . . . and bigger, faster-growing calves than would be the case without crossbreeding.

Sheep – Building has started on a project that could herald an entirely new concept in sheep production and marketing with a program of **confinement rearing of ewes and lambs.** The confinement setup . . . Y-O Ranches, near Wheatland, Wyoming . . . may eventually have more than 30,000 ewes.

Confinement raising of sheep will eliminate many problems of sheep producers in the range states . . . loss from dogs and coyotes, death losses and weight losses from internal parasites and adverse weather. The method will also cut down on labor requirements, and help control breeding and feeding programs.

The new enterprise has been hailed by the Sheep Industry Development Program as "one of the greatest things that has happened to the sheep industry in the past 25 years."

Hog Producers – There were 17 Illinois pork producers who recently received awards for a top job. Here are some of their production practices:

1. **All** use a crossbreeding program . . . Durocs, Hampshires and Yorkshires were most common breeds.
2. Replacement gilts are bred at eight to nine months of age.
3. Number of sows per boar ranged from 7 to 12 during a breeding season of three weeks.
4. Most common weaning age was four to five weeks.
5. Market hogs go out at 210 to 230 pounds . . . ranging in age from 5½ to 6½ months.

Transplants – Ova transfer in cattle has become routine procedure at International Cryo-Biological Services, Inc., and Dr. A. H. J. Rajamannan, ICBS president, has announced that orders from cattlemen for this service are now being accepted.

Ova transfer involves the surgical removal of many fertilized eggs from a genetically superior donor cow (superovulation drugs cause the multiple egg release), and placement in "incubator" cows, which carry the calves to birth. The procedure allows the superior cow to mother several valuable calves each year.

Inquiries from cattlemen about the ova transfer services should be sent to ICBS at 1935 West County Road B-2, St. Paul, Minnesota 55113.

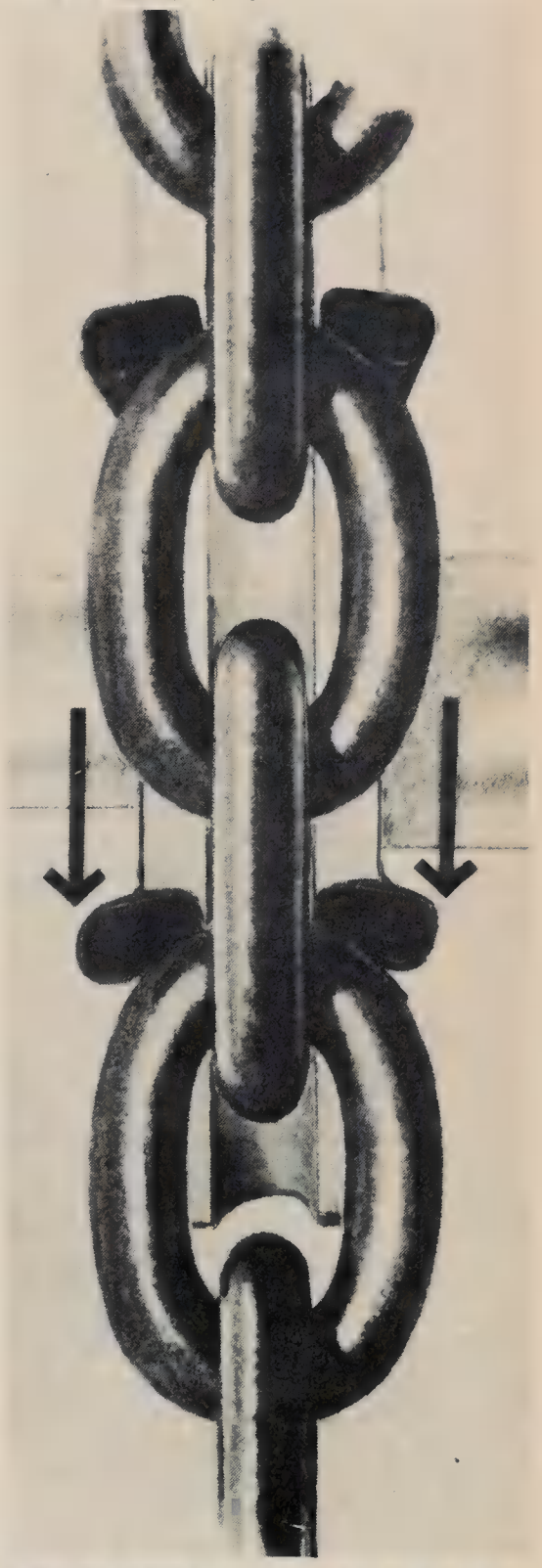
Ate Aatrex – Recent feeding trials conducted by the USDA's Agricultural Research Service showed no ill effects to cattle and sheep fed grass and alfalfa mixtures treated with Aatrex (atrazine) and Pramitol (prometone). These herbicides are often used to control weeds and brush along fences and in other areas near pastures.

Test animals fed Aatrex-treated fodder showed body weight gains comparable to control animals fed untreated fodder. Pramitol-treated vegetation was reduced in palatability, and test animals gained only about half as much as control animals.

At the end of the four-week trials when the animals were slaughtered and completely examined, there were no signs of herbicide poisoning or other internal damage.

Absorption of the herbicides by plant tissues, and exposure of animals to lower concentrations over a longer period of time may have contributed to the lack of any toxicity symptoms. Results do not indicate, however, that the materials would be safe to livestock if fed directly.

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Food For The Spirit



by Robert L. Clingan

RECENTLY the Catholic church has been sorting out its saints, and deposing those not considered authentic, those whose stories are largely legendary. One of the deposed is St. Christopher. The legend of his life is a beautiful story that should be shared, even though his sainthood has been called into serious question.

St. Christopher's original name was Offero, and his birthplace was Syria. As a young man, he showed great physical prowess and skill in spear and javelin throwing. He was told by his associates that a man of his strength and skill should be serving the greatest king of all, the emperor of Rome.

To Rome he went, offered his services, and was appointed by the emperor as his bodyguard. Offero soon discovered that the emperor was not as free of fear as one would expect of a king. When a singing troubadour came into the court, if his song included the name of Satan, the emperor became frightened. It was obvious to Offero that Satan must be a greater king than the emperor.

So, he left the court of Rome and went searching for Satan. Finally, he found a black knight who commanded other black knights and said he was Satan. These satanic knights, seemingly quite fearless, took advantage of travelers on the road. Yet Offero noted that when they came to an open shrine with a crucifix in it, the black knight went out of his way to avoid coming near the figure of Christ upon the cross. Surely, then, Christ was a greater king than the black knight.

Once again, Offero resumed his search for the greater king. Some monks finally offered to show him how to serve the greatest king of all, Jesus Christ. They shaved Offero's head, and gave him the monk's garb. They taught him to pray, and sing, and work in the garden. But Offero became restless; this was no way to use his strength to serve the king of kings.

Then one of the monks suggested a better pattern of service. There was a stream without a bridge. Fording the stream was the only way for travelers to get across. The monks had Offero build a hut and make himself available to help travelers across the stream.

One night when the stream had become a raging torrent, Offero heard a child's voice outside his cabin. It said, "Offero, Offero, I want to cross this night." Offero drew the child into the cabin and tried to settle him for the night, but to no avail. The child insisted that he must go, so Offero put him on his shoulder and started across.

Toward the middle of the stream, the child became heavier and heavier, until it seemed to Offero that he was carrying a man . . . a man with the weight of the sins of the world on his back. When Offero placed him down on the other side, the child had indeed become a man, whose eyes shone like all the stars together.

He said, "Offero, in carrying any person in need you are carrying me. Inasmuch as you have done it unto one of the least of these, you have done it unto me. From now on, you will be known as Christopher, which means Christ-bearer, even as you carried me across this stream tonight."

St. Christopher may not be an authentic and historic saint, but his legend does indeed deserve re-telling.

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Flood protection

According to a booklet just published by The Hartford Insurance Group, the $4 billion spent on flood protection projects since 1936 "**has not reduced flood damage potential to a significant degree on a national level.**"

Furthermore, say company specialists, most areas in the United States that are susceptible to flooding lack adequate flood insurance protection.

In conjunction with the U.S. Army Corps of Engineers, The Hartford has published a booklet about ways to reduce or avoid flood damage. "Flood-Proofing: A Technique of Avoiding Flood Damage" describes measures to be taken in designing new buildings as well as structural changes which are possible to protect existing facilities.

"Federal authorities estimate 1972 flood damage at over $3 billion," a Hartford Group official says, "but only 3 percent of that total was covered by insurance. According to the Insurance Information Institute less than 25 percent of the nation's flood-susceptible areas are participating in the federal flood insurance program and only 150,000 policies have been issued. Flood insurance and flood proofing are two important ways of fighting one of our greatest natural hazards."

Copies of the booklet may be obtained by writing to the company's home office public relations and advertising department, Hartford Plaza, Hartford, Connecticut 06115.

Dollar Guide

BLEND MILK PRICES per hundredweight in the New York-New Jersey (Order 2) milkshed are forecast as follows by NEDCO economist Chet Smith: Aug., $7.60; Sept., $7.88; Oct., $8.20; Nov., $8.10; and Dec., $7.90.

NEW FARM BILL is now law for four years ... sets up "target prices" above which farmers will get no subsidy payments, but federal government will pay farmers difference between lower price and target price. Uncle Sam is asking for full farm production, and is now sharing risk of possible falling farm prices that might result.

UREA added to corn silage at the rate of 10 pounds per ton is economical source of protein. With horizontal silos, be careful not to "bunch" urea up ... need a metering device at the chopper, or blower (if using one).

BLACKLEG OF CABBAGE is raising cain in central and western New York ... spread through seed. Price of cabbage should be high. Growers should avoid blackleg-infected field and seedbed areas for next year's crucifer crops.

FALL FERTILIZATION ... or at least accepting winter delivery of fertilizer with accompanying price discounts ... appears to be especially desirable this year. Fertilizer shortage didn't develop full-scale last spring, but potential is still there for next year.

In Northeast, nitrogen can leach badly on some soils if applied in fall, but phosphorus and potash stay put.

DAVID NOLAN is the recently-appointed head of the Farmers Home Administration in New York State. He hails from a dairy farm near Venice Center in Cayuga County, New York, and has had long experience in banking and farm credit.

WHEAT EXPORT SALES continue strong ... USDA reports 17,790,000 metric tons of wheat are already sold for the 1973-74 marketing year. Simple fact is that people overseas are willing to pay for U.S. grains without yelling about prices sharply higher than a year ago ... in marked contrast to the reaction of U.S. consumers.

There are 31,744,000 metric tons of other grains already sold by U.S. exporters, and scheduled for delivery overseas in the 1973-74 marketing year.

MEAT PRODUCTION is a complete mystery to most bureaucrats and consumers ... who thought farmers could be pushed around by price ceilings. Cattlemen have cut back production ... and held back cattle, waiting for end of price freeze on beef. The moral: government-mandated cheap beef is fine, if there is beef to buy.

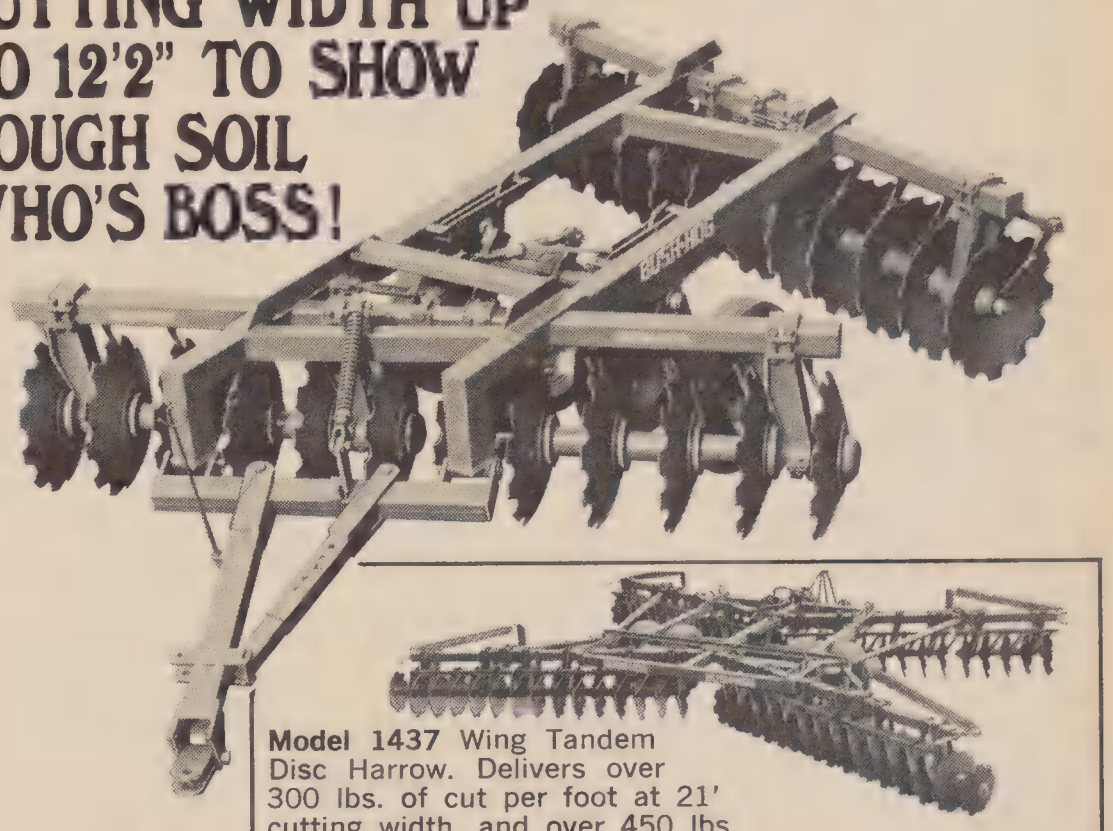
MILK PRODUCTION down in the New York-New Jersey federal order area by 7 percent during first 6 months of 1973 as compared to same period of 1972. New England down by 3 percent. Western New York state-order area down by nearly 6 percent.

Heavy culling of low producers is proceeding in response to record prices for beef animals. High feed prices have moved point of diminishing returns to lower milk production levels.

HIGH-MOISTURE CORN storage is of special interest to northeastern farmers this year. Oxygen-limiting structures will store this highly-palatable livestock feed ... and organic-acid preparations (such as Chemstor) will also prevent spoilage.

FARM MANAGEMENT HANDBOOK is available from Penn State University for $2.50 (plus 6% sales tax to Keystone State residents) by writing: Box 6000, University Park, Pa. 16802. It has 130 pages of suggestions for sharpening management talents.

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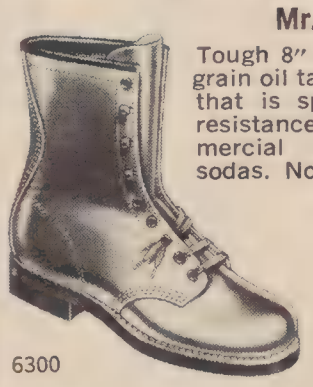
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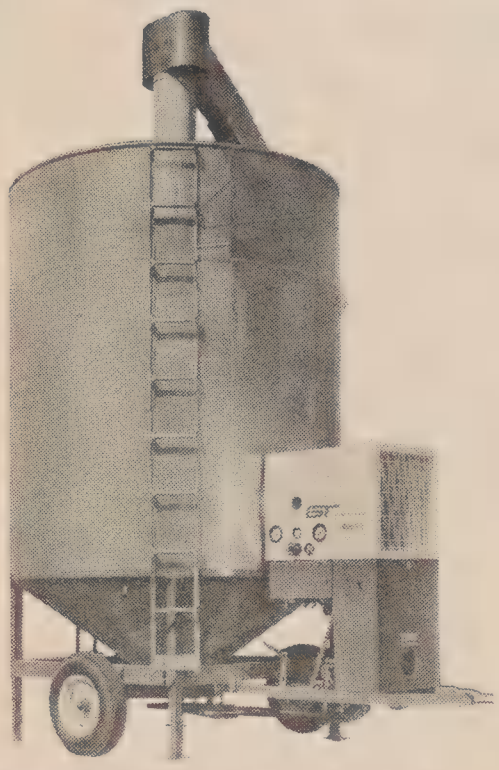
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Rockfest riles farmers

by Earl Ainsworth

CARL Westervelt of Watkins Glen, New York, and his wife, sat on their porch gaping in shocked dismay as hordes of young concert-goers traversed their cropland, leaving behind great swaths of flattened wheat and corn, strewn with everything from empty beer bottles to partially-consumed watermelons.

Up the road, dairyman Lynn Hughey and his family had reluctantly resigned themselves to the inevitable destruction that would result as an almost unimaginable human wave descended upon this rural community to listen to "The Grateful Dead," "The Allman Brothers," and "The Band." For the 600,000 fans, "Summer Jam" was a festival – for the neighboring farmers, it was a fiasco.

Carl and Lynn are two of about a dozen Schuyler County farmers who live within a three-mile radius of the famous Watkins Glen Grand Prix racecourse. For them, crowds are common, especially in the summer when as many as 75,000 fans pack "the Glen" for the auto races. Promotor Shelley Finkel had negotiated a contract with the Watkins Glen Grand Prix Corporation officials for a rock concert; 150,000 tickets were to be sold. That was a big crowd, but nothing to get up in arms about. That was the way it was to be.

That is, until something unpredicted happened. Fans who hadn't purchased the ten-dollar tickets decided to strike out on their own, hoping that amid the confusion they



Carl Westervelt stands at the intersection of two of the many paths that criss-crossed his fields. Bottles and trash were thrown into the standing wheat.



Lynn Hughey's hayfield-turned-campsite. Most bales not used for shelter were burned.



Festival site as it appeared Monday after festival. Both Lynn's and Carl's farms border this property.

could get in without paying. They were right. Less than one-third of the youths who jammed the site had paid.

The estimates of attendance beamed hourly over local radio skyrocketed from 100,000 to 300,000 almost overnight. By the day after the concert, the figure had swelled to 600,000, the biggest gathering of its kind ever. Sanitary planning was sadly inadequate and law enforcement was all but impossible.

By Friday, July 27, still 24 hours before the concert, traffic was at a standstill and cars were being abandoned as far as 20 miles away as determined young people opted for a long march, carrying their gear with them, rather than miss what they had come to see. Marchers converged on the concert site, creating a spectacle that Carl likened to "those war movies with waves of Chinese."

Slaughter

At one point, an excited neighbor stopped to inform Carl that some youths were in his hogyard down the road. Unable to get his vehicle into the congested roadway, Carl managed to summon the aid of a passing state trooper. The trooper caught five youths slaughtering a hog with an axe. Unsuccessful at their attempt to escape, the youths were apprehended, jailed, and ordered to make $100 restitution to Carl and pay an additional $375 in fines. Prompted by this incident, Carl took a count of his swine herd. He was five short.

Meanwhile, neighbor Lynn Hughey was forced to put his cows in the barn "because they were using them for horses." Lynn's hayfields were still laden with the first cutting of round bales, with the second growth only a few inches high. As the expected crowd size was exceeded and finally quadrupled, several of Lynn's hayfields became campsites.

Damage

Bales were burned in campfires, holes were dug, tents were pitched, and "houses" were erected with bales. "I wouldn't even venture a guess at how many bales I lost," Lynn complains, "but I know it's at least a thousand." Besides the damage to seeding and cut hay, garbage lay scattered from one end of the hayfields to the other.

Complete sections of Lynn's woven wire fence were cut out while his new three-strand barbed wire fence was trampled flat. His one-strand electric fence all but disappeared in the throng. He says his cows dropped 200 pounds of milk in two days. He doesn't know when he'll get them back outside because he doesn't know how long it'll be before he can get his fences repaired or the glass bottles removed.

"Don't get me wrong," Lynn hastens to add, "just about all the kids who came here were good kids. They were out to have a good time." But, as Carl points out, "If only one percent were troublemakers, that means there were 6,000 troublemakers all gathered in one place."

Both farmers readily agree that the worst aspect of the four-day ordeal was the anxiety created by being surrounded by strangers. "We haven't slept well in four nights," confides Lynn. "Even though most of them were good kids, the huge crowds made us very uncomfortable."

The Monday after "Summer Jam," the crowd had dwindled to a handful of hangers-on camped in the center of what, except for the canopied stage and sound equipment, might have been mistaken for an evacuated refugee camp. On bordering lands, farmers walked around surveying the damage, or talked with a team of county agricultural agents, or caught up on their sleep.

Extension agents Dick Bornholdt, Bill Menzi and Dick Eschler, after visiting the Westervelts and Hugheys, appeared visibly concerned. "There are so many questions to be answered here as to what course of action farmers should take to receive adequate compensation," Bill points out. Dick Eschler wondered if "there are any legal precedents for this kind of incident."

Questions like whom to sue or whether the suits should be brought by each individual farmer or all of them combined loom large in the aftermath of the country's largest rock festival in history. Many things remain unclear. How do you put a value on the expense incurred by having broken glass in your soil, or the disruption the festival caused in your work schedule?

Phenomenon

One thing, however, remains clear. What occurred at Watkins Glen this July is a phenomenon of our youth culture. It was also witnessed at Woodstock and on a lesser scale in other places. It is a phenomenon which, no matter what one thinks of it, should by now be anticipated and, depending on the community involved, prevented or at least accommodated by alert planning and full precautionary measures. These festivals almost always require rural lands. Those responsible for the events should be responsible for the security and sanctity of surrounding farms.

Ordeals like the one experienced by Carl Westervelt and Lynn Hughey should never have happened. Those who live in an area that might be a prospective site for a future rock festival should benefit from the experience of rural dwellers near Watkins Glen.



Farmland assessment rates

UNDER the provisions of the Agricultural Districts Law in New York State, a farmer may apply for assessment of his land according to its value **for agriculture** . . . and not on the basis of some alternate use. Generally, this provision applies to those farmers within a legally-organized agricultural district, but it also applies, under certain conditions, to farmers outside a district.

The State Board of Equalization and Assessment is charged with the responsibility of annually determining the average value of land for commercial farming. The local assessor is then required to use those values as **ceilings** in determining the taxable assessment of those parcels of farmland for which application has been made for agricultural assessment.

Exemption

The local assessor may assess the land for a higher figure, but the assessment in excess of the ceilings determined by Equalization and Assessment is exempt from taxation.

Some farmers have been fearful that local assessors would use the ceilings determined by E. and A. as guidelines for assessing **all** farmland . . . whether in an agricultural district or not. However, Equalization and Assessment officials have specifically directed that assessors do **not** do this . . . and have further emphasized that the ceilings are just that, and that lower assessments must be used if justified.

Professor Howard Conklin of the New York State College of Agriculture and Life Sciences, and one of the architects of the Agricultural Districts Law, points out two areas of controversy in the assessment procedures. One is that the "orchard" and "vineyard" categories involve the inclusion of trees and vines . . . even though these are clearly not **land.** However, the value of the vineyard trellis is **not** included.

Another question that has been raised involves the marked differences between the values of the same grade of land between counties. For instance, "A"-grade cropland carries a ceiling assessment figure of $950 per acre in Nassau County, but only $230 in Schoharie County. Since the land **for farming purposes** is directly comparable (within the grade definitions) between the two counties, then obviously the Nassau figure already includes the influence of the urban pressure on farmland on Long Island. It is this very influence which the Agricultural Districts Law seeks to minimize in an attempt to retain a viable agriculture in the Empire State.

Questions

The accompanying tables show the ceilings for agricultural value assessments in all the counties of the State. Remember that these apply only to **eligible** farmland, requiring:

— ownership of 10 or more acres used in commercial agricultural production for the two preceding years

— agricultural production with an average gross sales value of $10,000 or more

— filing an application with the local assessor.

These are the definitions of the various classifications:

Cropland

A. Suited to the production of corn for grain, alfalfa, wheat and lower-value vegetable crops, such as cabbage, potatoes, sweet corn, snap beans, processing tomatoes and dry beans. With good management, capable of yielding over 100 bushels of corn, 3½ tons of alfalfa, and 50 bushels of wheat per acre. With good management, minimum yield capabilities per acre for vegetable crops are as follows: cabbage, 25 tons; potatoes, 300 hundredweight; sweet corn, 6 tons; snap beans, 3 tons; processing tomatoes, 20 tons; and dry beans, 2,000 pounds.

B. Most commonly used for corn silage, hay and small grains, though lower value vegetable crops may be grown in some areas. With good management, corn silage yield capability is 18 tons or more per acre. Alfalfa grass mixtures yield 2½ tons or more per acre. Yields for vegetable crops are below those for "A"-rated cropland.

C. Most commonly used for dairying. Corn, if grown, is mostly for silage, and yields are often under 15 tons per acre. A high proportion is hay, with some grass, alfalfa and clover, and yields may fall under 2½ tons per acre. Oats are sometimes grown, and oat yields are usually under 75 bushels. Vegetables are seldom produced commercially. When land is used for pasture, yields are comparable to yields for hay.

Orchards

A. Under good management, orchard will yield 650 bushels of apples per acre, 6½ tons of cherries per acre, or equivalent yields of less common fruits.

B. Under good management, orchard will yield 450 bushels of apples per acre, 4 tons of cherries per acre, or equivalent yields of less common fruits.

C. Orchards which yield less than the amounts indicated in "B" above. Fruit orchards not capable of yielding 300 bushels of apples per acre, or 2½ tons of cherries per acre, should be considered as cropland with a "B" rating, since such orchards are generally terminated and the trees removed.

Vineyards

A. Under good management, vineyard will yield 7 tons of grapes per acre.

B. Under good management, vineyard will yield 5½ tons of grapes per acre.

C. Vineyards yield less than 5½ tons of grapes per acre.

Muck

A. Suited for growing onions and lettuce. With good management, yields 1,000 bushels or more of onions per acre. Depth of muck is greater than 6 feet. Drainage is good enough to preclude flood damage to crops. Irrigation water rights are assured.

B. Suited for growing onions and some lettuce, but onion yields are generally between 600 and 1,000 bushels per acre. Depth of muck is from 3 to 6 feet. Occasional damage from flooding, and irrigation water may be scant in some years.

C. Limited to growing potatoes. Depth of muck is under 3 feet. Legal rights to water for irrigation may be questionable. Spring and fall flooding may restrict use.

Agricultural Value Ceiling Factors
New York State Counties, 1973

	Assessment ceiling per acre							
	Cropland*			Orchard			Pasture	Other Farmland
County	A	B	C**	A	B	C		
Albany	270	150	80		390	230	50	20
Allegany	200	100	50				30	20
Broome	250	150	80	500	340	170	50	30
Cattaraugus	250	100	50				30	20
Cayuga	250	130	80	420	300	170	50	20
Chautauqua	290	150	90	620	440	270	40	20
Chemung	250	150	80				50	30
Chenango	250	150	80				50	20
Clinton	160	120	60	530	360	270	40	20
Columbia	350	270	150	600	450	300	120	50
Cortland	230	150	80				50	20
Delaware	250	150	80				50	20
Dutchess	350	270	150	700	540	300	120	50
Erie	420	200	130	600	450	300	80	40
Essex	140	90	50	460	300	230	30	20
Franklin	140	90	50				30	20
Fulton	150	100	60				30	20
Genesee	270	170	100	460	300	150	60	20
Greene	250	150	80	460	300	150	50	20
Hamilton	140	90	50				30	20
Herkimer	250	150	80				50	30
Jefferson	190	120	60				30	20
Lewis	190	130	70				40	20
Livingston	250	150	80				50	20
Madison	250	150	80	390	270	150	50	20
Monroe	270	150	80	620	460	300	50	20
Montgomery	190	125	70	500	340	170	50	20
Nassau	950	700	430					
Niagara	230	150	80	540	390	230	50	20
Oneida	250	150	80	500	340	170	50	30
Onondaga	250	150	80	540	390	230	50	20
Ontario	250	150	80	540	390	230	50	20
Orange	350	270	150	700	540	300	120	50
Orleans	230	150	80	540	390	230	50	20
Oswego	190	130	70	540	390	230	40	20
Otsego	230	150	60				50	20
Putnam	350	270	150				120	50
Rensselaer	270	170	100	550	400	230	60	30
Rockland	350	270	150	700	540	300	120	50
St. Lawrence	150	100	60				30	20
Saratoga	270	170	100	550	400	230	60	30
Schenectady	230	150	80				50	20
Schoharie	230	150	80	540	390	230	50	20
Schuyler	230	150	80	420	250	170	50	30
Seneca	200	150	80	390	230	150	50	20
Steuben	250	150	80				50	30
Suffolk	950	700	450	1400	1100	800		90
Sullivan	250	150	80				50	20
Tioga	250	150	80				50	30
Tompkins	250	150	80				50	20
Ulster	350	270	150	700	540	300	90	40
Warren	270	170	100				60	30
Washington	270	170	100	550	400	230	60	30
Wayne	250	150	80	620	460	300	50	20
Westchester	350	270	150	700	540	300	120	50
Wyoming	290	170	80	590	420	250	50	30
Yates	250	150	80	540	390	230	50	20

*Nine counties had cropland qualifying for an additional category "E," defined as follows: "Suited to the production of high value vegetable crops, including fresh-grown tomatoes, carrots, beets, broccoli, peppers, celery, strawberries, melons, spinach and lettuce. Availability of irrigation water is assured." Those counties, and the per acre assessment ceiling for their type of land, are: Cortland, $390; Erie, $840; Franklin, $270; Livingston, $390; Montgomery, $340; Onondaga, $390; Ontario, $390; Schoharie, $460; Yates, $350.

**Includes tillable pasture.

Agricultural Value Ceiling Factors
New York State Counties, 1973

	Assessment ceiling per acre					
	Vineyard			Muck		
County	A	B	C	A	B	C
Cattaraugus	500	340	170			
Cayuga				670	500	300
Chautauqua	800	500	300			
Columbia	400	300	200			
Genesee				1150	750	300
Livingston	460	370	280	600	450	300
Madison				540	300	150
Monroe	700	450	280			
Niagara	560	400	280			
Oneida				500	340	170
Ontario	700	450	280			
Orange				1000	770	540
Orleans				1150	750	300
Oswego				770	620	460
Schuyler	760	500	450			
Seneca	560	420	280	620	460	300
Steuben	760	500	300	840	670	500
Ulster	450	350	250			
Wayne	560	420	280	600	450	300
Yates	700	460	280	600	450	300



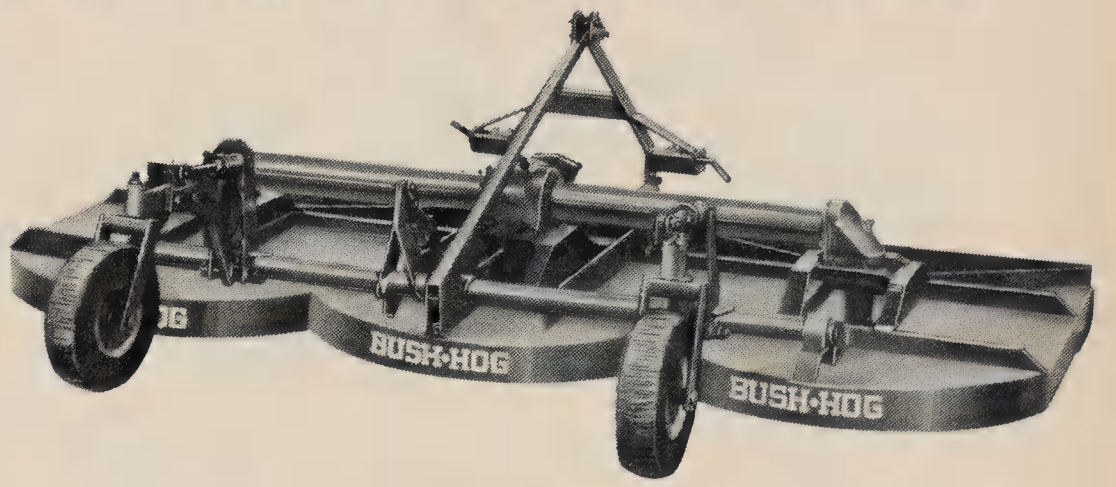
Mr. and Mrs. Byron B. Clough and their five children of Fonda, New York, recently surpassed 1,512 other families to win the national dairy cattle judging contest sponsored by Hoard's Dairyman. A dairyman of 20 years, Byron is currently sales representative for Blue Seal Feeds. The children are (l. to r.): Paul, Rebecca, Melanie, Byron D., and Kurt. Photo: Blue Seal Feeds.



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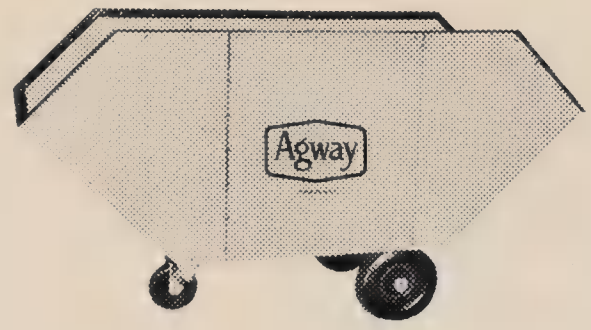
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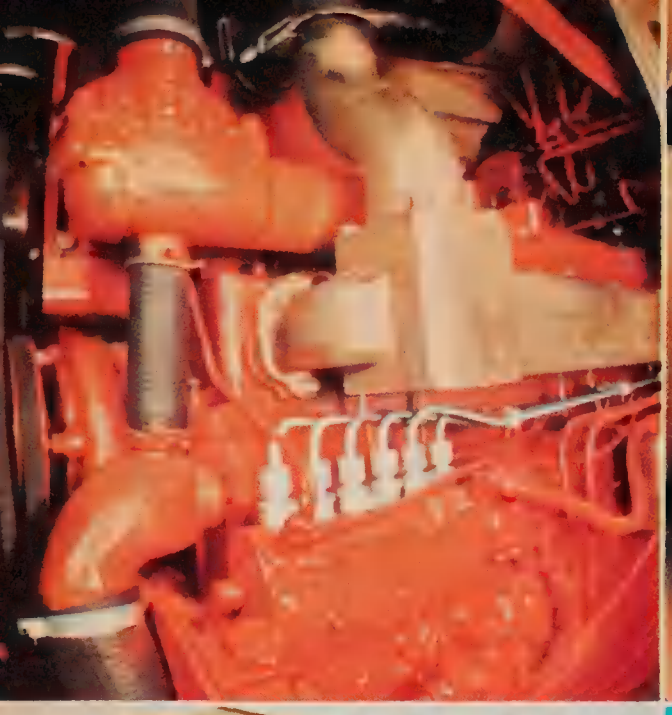
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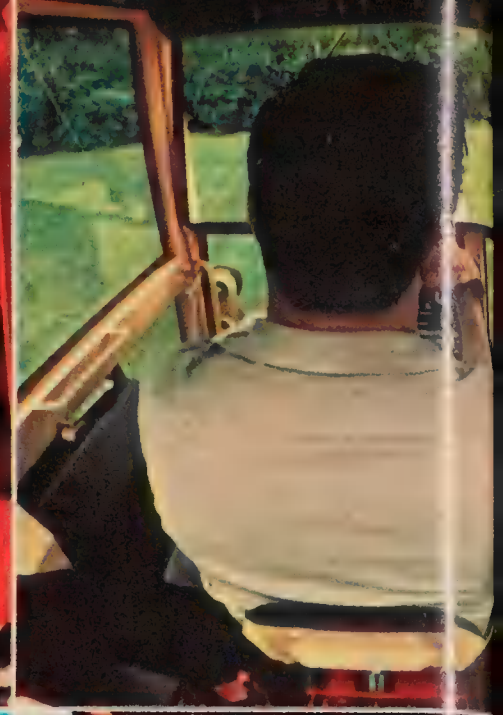
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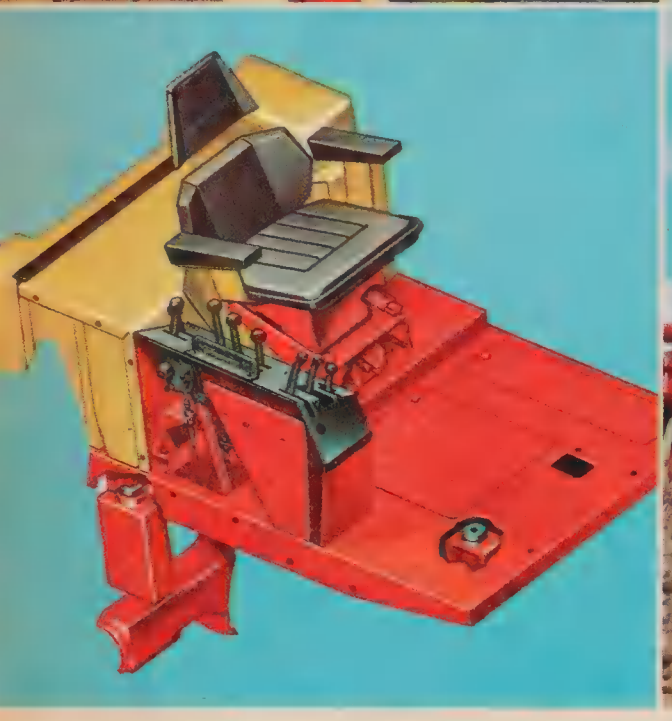














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Dates to Remember

Sept. 4 - Statewide Dry Bean Field Day at Tirabassi Bros. Farm (former Gannett Farm) near Exit 46 of NYS Thruway (Henrietta Interchange).

Sept. 6 - Cornell's Aurora Farm Field Day, Aurora, N.Y.

Sept. 6-7 - Caledonia Meat Sale & Show, Caledonia, N.Y.

Sept. 7-9 - Yorktown Grange Fair, Yorktown Heights, N.Y.

Sept. 12 - Commercial Vegetable Growers Field Day, Penn State Horticultural Research Farm, 10 miles west of University Park Campus on Rt. 45, Pa.

Sept. 13 - NYS Guernsey Sale, Zogg Sales Pavilion, Cortland, N.Y.

Sept. 14-16 - SPICE Annual Meeting, Edgewood Resort Hotel, Alexandria Bay, N.Y.

Sept. 14-17 - New England 4-H Horse Show, West Springfield, Mass.

Sept. 14-23 - Eastern States Exposition, West Springfield, Mass.

Sept. 15-16 - 2nd Annual Pioneer Craft Festival, Busti, N.Y.

Sept. 20-23 - New England 4-H Dairy Show, West Springfield, Mass.

Sept. 24-28 - All-American Dairy Show, Farm Show Building, Harrisburg, Pa.

Sept. 26-28 - Rural Environmental Engineering Conference on Water Pollution Control, Sugarbush Inn, Warren, Vt.

Sept. 28-30 - 2nd Annual New England Draft Horse Days, Cabot, Vt.

Sept. 30-Oct. 3 - 28th Annual Meeting, Soil Conservation Society of America, Arlington Hotel, Hot Springs, Ark.

Sept. 30-Oct. 4 - Annual Meeting, National Association of County Agricultural Agents, Baltimore, Md.

Oct. - Empire State Beekeepers of NYS Group Tour to International Congress in Argentina. For details, contact Philip T. Brown, P.O. Box 35, Cambridge, N.Y. 12816.

Oct. 1 - National Charolais Polled Sale, Riverwood Farms, Powell, Ohio. For information, contact Buzz Garey, 100 Walnut Lane, Morrisville, Pa. 19067

Oct. 2 - National Junior Angus Heifer Show, Kansas City, Mo.

Oct. 3 - 12th National Broiler Housing Seminar, University of Delaware Substation, Georgetown, Del.

Oct. 12-14 - Fall Foliage Festival, Cohocton, N.Y.

Oct. 16-17 - 8th Annual National Meeting on Poultry Condemnations, Delmarva Convention Hall, Delmar, Md.

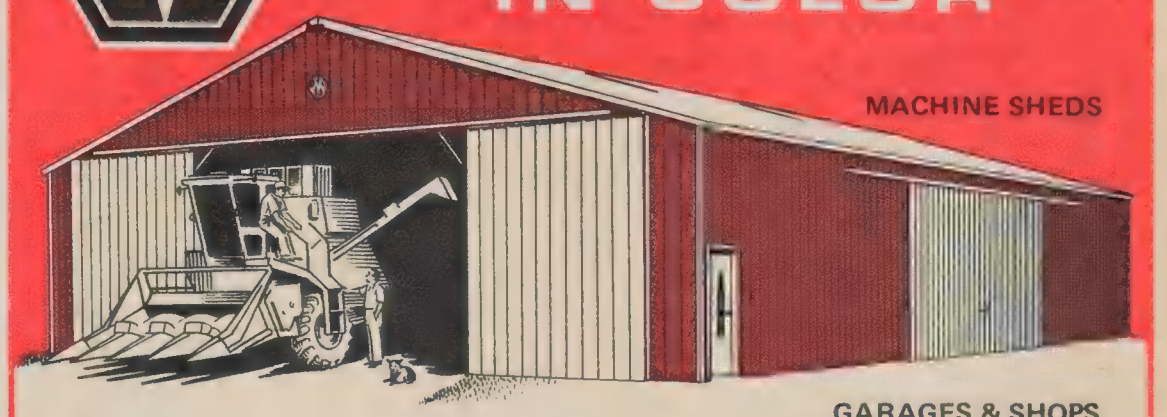
Oct. 17-19 - National FFA Convention, Kansas City, Mo.

Oct. 19-27 - American Royal Livestock and Horse Show, Kansas City, Mo.

New York Beef Cattlemen's Association Feeder Sales: Oct. 20, Westernville; Oct. 25, Dryden; Oct. 27, Pike; Oct. 30, Caledonia.

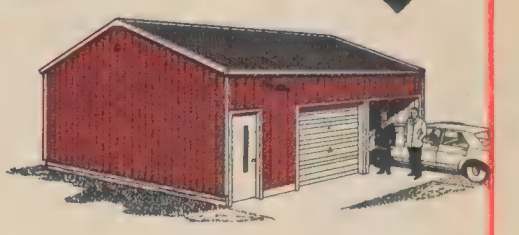
Oct. 31-Nov. 2 - Cornell University Nutrition Conference for Feed Manufacturers, Statler-Hilton Hotel, Buffalo, N.Y.

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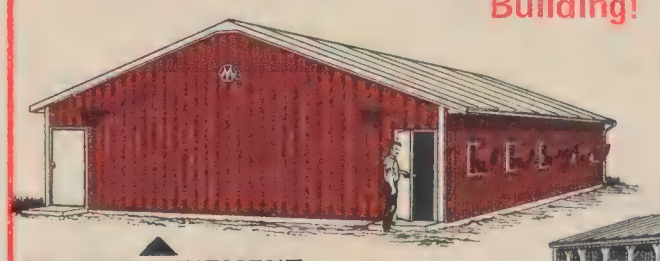


MACHINE SHEDS

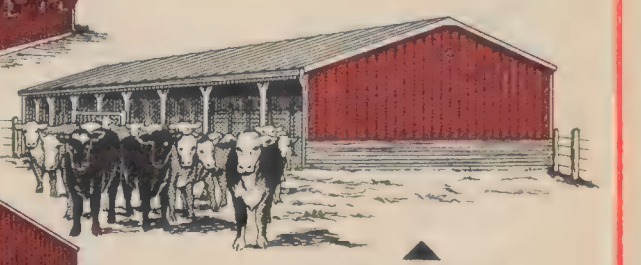
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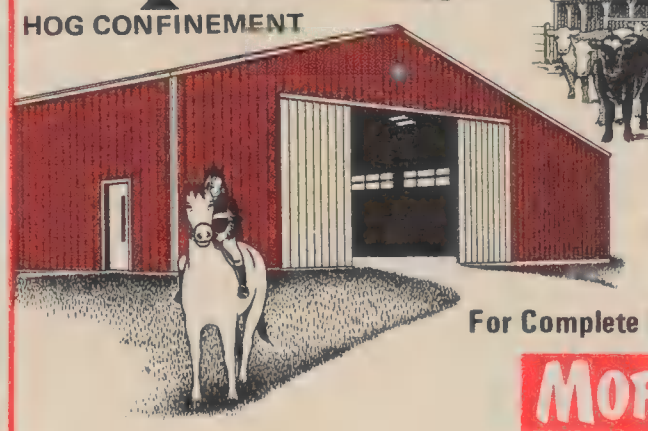


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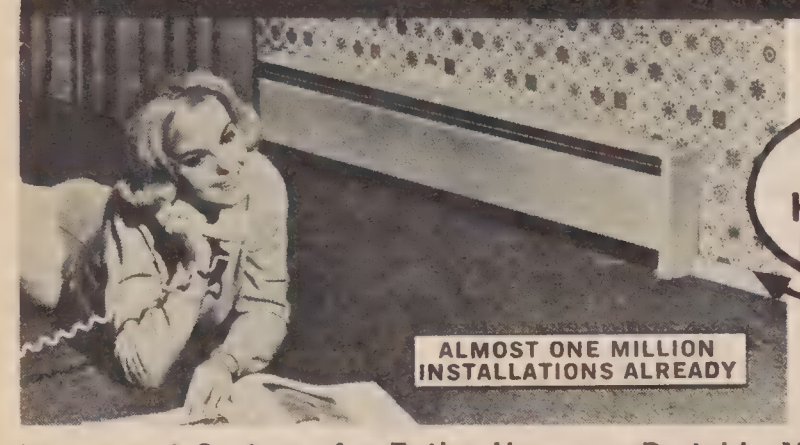
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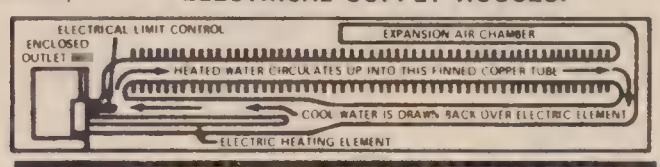
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"A" is for Apple

by Marcia Pimentel



Photo: Western New York Apple Growers Assn.

Apple Rice Pudding makes a tasty and easy dessert to serve family and guests. Try it this fall while apples are at their very best.

"A" stands for Apples — appetizing, abundant and ever so appealing. Crisp red apples are a treat just eaten out of hand for a snack or dessert. Apples can be baked or roasted, combined with other fruits, vegetables or meats and made into delicious cider, jellies or apple butter.

In fact, the recipe list seems almost endless, for the adaptable apple lends it special flavor to everything from appetizers, salads and main dishes to dessert. Now, thanks to improved commercial storage techniques, we find this versatile fruit the year 'round in our markets.

How about **Apple Cider Shrub** as a refreshing first course for Sunday dinner? This combination is also an easy and economical punch for large groups.

To serve as a punch, I pour a gallon of well chilled cider into punch bowl and add one ice cube tray of frozen cider to keep the punch chilled during serving. This way the punch is not diluted. Just before serving I spoon orange sherbet on top of the cider. Proportions of cider to sherbet can vary, but I use at least one quart of sherbet for a gallon of cider.

APPLE CIDER SHRUB

2 cups apple cider
1 cup orange sherbet

Chill cider thoroughly. Just before serving, pour cider into punch cups or juice glasses. Top with a generous spoonful of sherbet. Serve immediately. Six servings.

Tender **buttermilk pancakes with apples** and served with sausage or bacon make a hearty breakfast or lunch.

APPLE PANCAKES

1 egg
1¼ cups buttermilk
2 tablespoons melted butter or vegetable oil
1¼ cups sifted flour
½ teaspoon salt
½ teaspoon soda
½ teaspoon baking powder
1½ tablespoons sugar
1 cup chopped, peeled apple

Beat egg slightly; add buttermilk and fat, mixing well. Sift dry ingredients and combine with liquids, mixing until no dry particles remain. Stir in apple.

Bake on lightly greased griddle. Turn pancakes when tiny bubbles have formed on top. Yield: 12 to 16 pancakes.

Serve with syrup or with melted butter and a generous sprinkle of cinnamon sugar.

Good Salads

Apples and cabbage are tasty companions. Next time you make cole slaw, add diced apples to it. I find one cup of diced, unpeeled apple blends well with two cups of shredded cabbage.

Apples and red cabbage are available during the fall and winter months and combined in this **Dutch Cabbage** recipe give variety in both flavor and texture. My family likes the mild sweet-sour flavor and prefers the larger quantity of caraway seed. When you first make this, you may wish to experiment with the amount of caraway to see what suits your taste.

DUTCH CABBAGE

1 tablespoon oil or bacon fat
3 cups shredded red cabbage
2 tart apples, cored and sliced
2 tablespoons brown sugar
2 tablespoons vinegar
2 tablespoons water
¼ teaspoon salt
¼ teaspoon pepper
⅛ to ¼ teaspoon caraway seed

In a large skillet warm oil or fat. Add remaining ingredients and stir gently to blend. Cover and cook over moderate heat 15 to 20 minutes, depending on how crisp you like cabbage. Makes 5 to 6 servings.

APPLE-GRAPE SALAD

1 cup Emperor grapes
4 apples (sweet)
1 tablespoon lemon juice
1 cup sour cream
⅓ to ½ cup salad dressing
⅓ cup chopped walnuts (optional)
Lettuce

Seed grapes and cut into halves. Wash apples, core and cut into cubes. Leave skin on for color. Sprinkle lemon juice over fruit to prevent browning. Refrigerate.

Mix sour cream and salad dressing. Just before serving, toss fruit in dressing; add nuts and serve on lettuce. Six servings.

Note: If you do not have lemon juice, orange or pineapple juice can also be used to prevent apples from browning. And one-half cup of celery is a good addition to the recipe.

CINNAMON APPLES

2 cups granulated sugar
1 cup water
¼ to ⅓ cup red cinnamon candies (red-hots)
6 tart apples
Red food coloring

Make a syrup of 1 cup sugar, water and candies. Wash apples, core and pare if desired. If you plan to use apples as a garnish, you may prefer to cut them in ½-inch slices.

Place apples in hot syrup, cooking slowly until just fork tender. Turn frequently or baste. If apples are not as red as you would like, add a drop or two of red coloring to syrup and stir to blend.

When apples are tender, remove from syrup. Now add remaining cup of sugar and boil syrup 2 minutes. Pour syrup over apples and cool. Makes 6 servings.

Note: Cinnamon apples can be served as a salad on a lettuce leaf with cottage cheese and your favorite dressing, as a meat platter garnish, or with whipped cream for dessert.

Have you tried **apples and sweet potatoes** baked together? This casserole is one that can be prepared ahead and heated for serving. It also expands easily when you plan to serve more than six.

APPLE—SWEET POTATO CASSEROLE

1 18-ounce can sweet potatoes, drained (about 2 cups cooked)
¼ cup orange juice
½ teaspoon orange rind
1 teaspoon lemon juice
1 can (20 ounces) apple pie filling (2 cups cooked apple slices)

Arrange sweet potatoes in a 2-quart greased casserole. Blend juices and apples; add to casserole. Bake covered in 375° oven until vegetable is heated through. Six servings.

Apple Cheese Dessert is an expandable recipe, and it could be doubled and baked in a 9"×12" pan for a few minutes longer or until the apples test soft with a fork.

APPLE CHEESE DESSERT

6 cups apple slices, peeled
1 tablespoon lemon juice
¾ cup granulated sugar
¼ teaspoon cinnamon
Pinch nutmeg
½ cup flour
¼ teaspoon salt
¼ cup butter or margarine
⅔ cup grated sharp cheese

Fill a 10-inch-deep pie pan or 2-quart casserole with apples. Sprinkle with lemon juice and ¼ cup sugar. In a bowl, mix remaining ½ cup sugar, cinnamon, nutmeg, flour and salt. Cut in butter, then stir in cheese.

Spread topping over apples. Bake at 350° until apples are tender, 40 to 45 minutes. Serve warm or cold. Six servings.

Another delicious and nutritious dessert comes from the Western New York Apple Growers Association. You will recognize **Apple Rice Pudding** as a basic baked rice pudding, with the addition of apples and an interesting combination of spices.

APPLE RICE PUDDING

4 eggs, slightly beaten
1 cup firmly packed light brown sugar
1 teaspoon cinnamon
½ teaspoon allspice
1 teaspoon salt
1 tall can (1⅔ cups) evaporated milk
1⅔ cups apple juice
3 cups cooked rice
½ cup chopped walnuts
½ cup golden raisins
2 cups diced, peeled apples
Nutmeg

Combine eggs, brown sugar, cinnamon, allspice and salt in greased 2-quart casserole; mix well. Add milk, apple juice and rice. Stir in remaining ingredients and sprinkle with nutmeg.

Bake at 325° about 1½ hours or until knife inserted near rim comes out clean. Garnish with whipped cream if desired. Makes 8 to 10 servings.

Do you have . . . . .

Any idea where **Ms. Freda Williams, 427 Main St., Lisbon, N. H. 03585,** can find a Knit-R-Pak for putting designs on home knit articles?

A pattern for the old double wedding ring crocheted rug you would loan **Mrs. Anna Straub, R. D., Herndon, Pa. 17830?**

Any Indian arrow cards that used to come with Nabisco Shredded Wheat you do not wish to keep? **Ms. Freda Kristoff, Main St., East Princeton, Mass. 01517,** would like to find some.

A butter dish in "Azalea" china, formerly available from the Larkin Company? This request comes from **Mrs. Robert Cady, 306 Parrish Lane, Syracuse, N. Y. 13205.**

The old book, "Horse Secrets" by Dr. A. S. Alexander? **Mrs. Hallie Sweeting, R. D. 2, Sterling, N. Y. 13156,** is willing to pay a reasonable price for it.

An old Lewis County Atlas you would sell? This request comes from **Mrs. John P. Teal, Sr., Lyons Falls, N. Y. 13368.**

A recipe for "Rich Chocolate Cake" which appeared about 50 years ago in the **Rural New Yorker? Mrs. George E. Rouse, 507 Trebisky Rd., Richmond Heights, Ohio 44143,** says it is the best chocolate cake she ever tasted.

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GARDEN TALK

by George and Katy Abraham

Carpenter Bees

September is a bad month for wasps, hornets and bees. Especially troublesome are carpenter bees, large yellow insects about one inch long and resembling bumblebees. They fly erratically near the eaves of your home and often make large holes, one-half inch in diameter in the wood.

The carpenter bee has a bare, shiny, black abdomen. Bumblebees have yellowish, hairy abdomens. As far as we know, the carpenter bee will attack all species of dried wood, especially soft woods such as cedar, redwood, pine and fir.

Control: Keep exposed wooden surfaces well painted, or direct a dust or spray of 5% Seven or 5% chlordane into the entrance holes. Aerosol sprays do a fine job knocking out the pests, but whatever you use, do the job in the evening.

Build A Hotbed

Right now, gardening chores are relatively few, so it's a good idea to think about making a hotbed or a coldframe – both decided assets to any home gardener. Amateurs, as well as commercial growers, find these ideal structures for growing plants.

With the horse population what it is today (larger than 25 years ago), plenty of horse manure is available for heating the hotbed. Cement blocks make a good frame, and for the roof, you can use fiberglas, sash (you'd be surprised how many people have window sash stashed away in the garage), or you can make sash out of plastic.

Starting Your House Plants

Don't let Jack Frost kill your geraniums, coleus, dayplants, etc. Either take them up and bring them indoors, or take cuttings from the tips and root them in sand, perlite, vermiculite or plain tap water.

After they have rooted, pot them in a mixture of one part each sand, peat and loam. Keep them watered regularly and in a bright window. Bright means indirect sun; direct sunlight on coleus or dayplants isn't helpful.

Holes In Lawns

We've had dozens of letters from readers asking us what causes holes in their lawns. And we've dozens of explanations – skunks searching for grubs; worms; flickers, grackles and blackbirds digging for grubs; chipmunks and squirrels hiding nuts, and certain types of wasps or bees make holes in the ground.

As most of you know, night crawlers will make holes in lawns, and you see them especially after a rain. If you go out at night with a flashlight, you can see them scram when the light is beamed on them.

Control: Don't do anything. Skunks and night crawlers are beneficial. The holes might not be attractive, but they do no harm.

Control Slugs

One way to keep the slug population down next year is to clean up all debris this fall. Mulch, dead leaves, empty boxes, etc., all serve as shelter for slugs, so sanitation is important in slug control. We have slugs almost 8 inches long in our own greenhouse, and we have to battle them constantly.

Slugs are snails without shells. They vary in size, depending on species and age, from ¼ inch to 8 inches in length. Slugs secrete a slime which they leave behind when they move.

The number of eggs laid at one time by one slug may approach 100, but averages 20 to 30. Under high temperatures of a greenhouse, slugs may lay fertile eggs when only 6 weeks old. Slugs are hermaphroditic, that is, they can be both males and females at the same time. Slugs can change from male to female; one slug can fertilize itself, and a single slug raised in isolation may lay fertile eggs.

Control: It's difficult! Besides sanitation, you can go out at night with a light and handpick them. Also, if you dash a little salt on them, they'll die.

Harvesting Herbs

Seeds, leaves and flowering tops (and occasionally the roots) of herbs are used for flavoring. The flavor of herbs is due for the most part to a volatile or essential oil contained in small glands of leaves, seeds and fruits. Flavor is retained longer if herbs are harvested at the right time and properly cured and stored.

Young, tender leaves can be gathered and used fresh at any time during the season, but for winter use, they should be harvested when the plants begin to flower and then dried rapidly in a well-ventilated, darkened room. If leaves are at all dusty or gritty, wash in cold water and thoroughly drain before drying. A well-ventilated, darkened room, such as an attic or other dry, airy room, furnishes ideal conditions for curing most herbs in a short time.

AA Garden Clinic

A reader writes, "Our poinsettia is 4 feet high, and we want to make it bloom for the holidays. Can it be cut back?"

Answer – Yes, cut it back at least half or more. Take tip cuttings and root them in perlite or vermiculite. These will make good flowering plants by the time Christmas rolls around. Also, the mother plant will be nice and bushy and should bear for the holidays.

HAIKU FOR AUTUMN

by Mildred Goff

Is winter so near?
One yellow leaf is floating
On the lily pond.

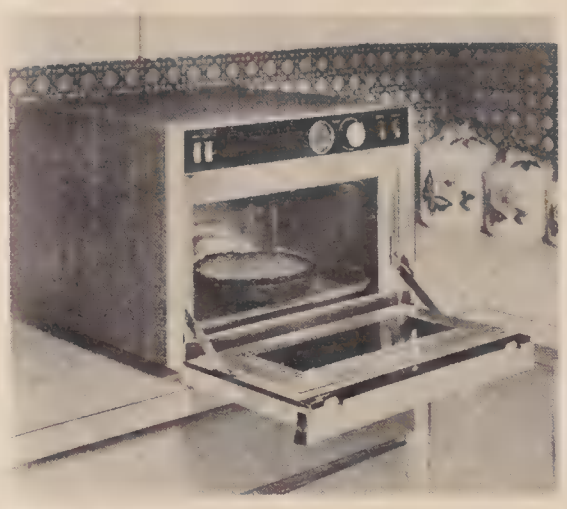
North wind, do not blow.
For one more day, let summer
Dream in my garden

AROUND the HOUSE

An exclusive new "dual-power" microwave oven that can cook delicate foods such as cheesecakes and souffles, as well as improve browning and defrosting, is being introduced by **Sears, Roebuck and Co.**

Frozen foods are thawed on the low setting, then switched to high power for cooking. High-protein foods such as souffles, cheesecakes and custards won't become tough and stringy when cooked at the low power. Also, beef and pork roasts are more tender and juicy and can be cooked to the desired degree of doneness.

Available for about $450.



Fashion Forecast

Fall and winter 1973 will be the season for the "great put-together," according to women's fashion experts at **J. C. Penney Company, Inc.** Big things are forecast for "changeable partners" – tops (especially sweaters and shirts) and bottoms (mainly pants) – that can be mixed to provide a seemingly endless number of outfits. This theme is not limited to women's clothing either, but also pervades men's and children's fashions.

The look for fall and winter will be soft and easy, casual and comfortable, the Penney experts believe. Shirts and turtlenecks will continue to provide the basis for the outfit, with cardigans, vests, or blazers being worn over them. While dresses and skirts are being shown, pants will continue to be the key, especially high-waist styles with wide legs.

Nature will continue its influence, with women favoring earth tones such as russets and greens. Millinery, especially cloches and berets, will be in evidence, while cloggy, thick-soled shoes will complete the picture. Jackets featuring strong texture interest are expected to have a good season, with three lengths from waist to fingertip being shown.

New from Betty Crocker – **Betty Crocker's Wedding Plan-Book – A Survival Guide for the Bride-To-Be.** It contains answers to hundreds of questions, calendars for schedules, checklists and charts. Make notes, file papers, record gifts and check progress of what's been done and what still needs doing.

Also there's a special collection of menus and recipes for wedding receptions and parties, from a brunch for 12 to buffet for 50. Available in bookstores for $1.95.

Do you know the difference . . . .

between Roquefort and bleu cheese?

According to dairy specialists at the U. S. Department of Agriculture, Roquefort is made from milk of ewes, only in south France. Bleu cheese is made by the same methods, but from the milk of cows – anywhere.

between an irregular and a second?

An irregular has very minor defects that will not affect the wearing quality of the product. A second has a more serious defect which may affect the durability. Carefully examine a product marked "second" before buying.

How do you roast chestnuts?

Slash through the shells on the flat side of the nuts. Place chestnuts, cut sides up on a baking sheet. Roast at 400°F until tender, for about 20 minutes. Insert fork through cut in shell to test tenderness.



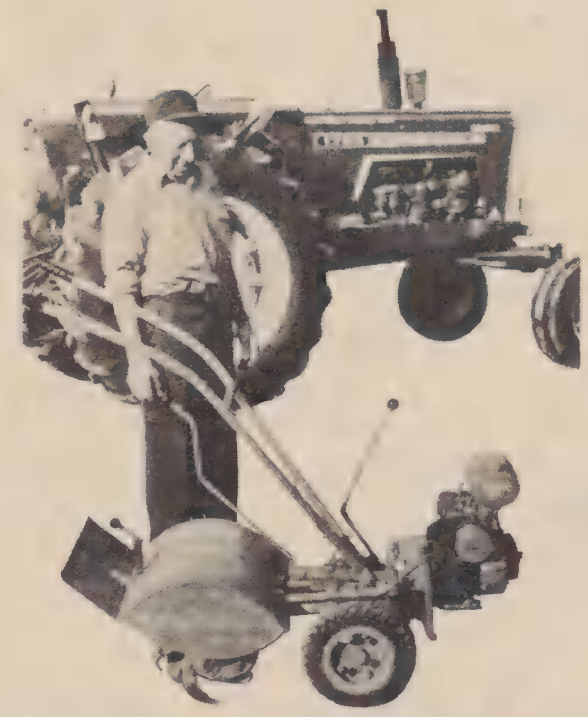
When it becomes necessary to look down a child's throat, he or she will not mind so much if you hold down the tongue with a small lollipop instead of a spoon.

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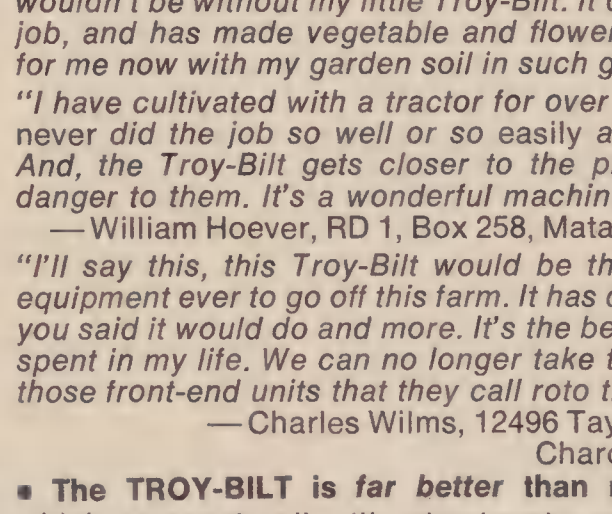
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"Without good equipment you're just struggling," says Oscar Rheingold, dairy farmer of East Schodack, New York, shown here with his new $12,000, 100HP tractor for this farm and his Troy-Bilt Tiller for his garden. "I wouldn't be without my little Troy-Bilt. It does a beautiful job, and has made vegetable and flower growing a joy for me now with my garden soil in such good shape."

"I have cultivated with a tractor for over 20 years, but it never did the job so well or so easily as the Troy-Bilt! And, the Troy-Bilt gets closer to the plants, with less danger to them. It's a wonderful machine!"
—William Hoever, RD 1, Box 258, Matawan, N.J. 07747

"I'll say this, this Troy-Bilt would be the last piece of equipment ever to go off this farm. It has done everything you said it would do and more. It's the best money I ever spent in my life. We can no longer take the pounding of those front-end units that they call roto tillers."
—Charles Wilms, 12496 Taylor Wells Road, Chardon, Ohio 44024

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- **The TROY-BILT is actually *two* machines in one!** It can chop up as well as till under all garden residues—including *standing cornstalks* as shown at right above—weeds, cover crops, mulches leaves, manures. Ever see a front-end tiller do all this? The TROY-BILT can "power compost" tons of vegetation turning your *whole garden* into a fabulously fertile "compost pile!"



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A streamlined design that permits close cutting around trees, fences and buildings is a feature of BMB's XL series of rotary mowers. Available in lift or trail type, 5 or 6-foot cutting width with 3-point or IHR hookup. Formed 10-gauge steel is used for the main housing, and 4-inch channel frame members provide strength and durability. An exclusive "Z" bar rear closure controls cut material and also strengthens units, which have a one-year-warranty.

Kenneth Dewan of the Conde Milking Machine Company, Sherrill, New York, placed second in the last Cow Judging Contest for Advertising Men, sponsored by Hoard's Dairyman. He was only two points out of first place.

Mr. Dewan is sales manager of Conde's Milking Machine Division.

Ideal for the limited-acreage grower is the new International No. 555 Forage Harvester. It is a trailing, power-take-off-driven, direct-throw harvester that is being marketed as an economy unit to which a row-crop unit (two rows) can be applied.

An Oliver tractor and plow manufactured by White Farm Equipment Company took four "firsts" in recent competition which included comparable tractor/plow teams built by four other leading farm machinery manufacturers. Tests were conducted by an independent testing organization.

White Farm's entry . . . the new 145 pto horsepower Caterpillar-powered Oliver 2255 tractor and new 588 plow . . . outperformed in cold weather starting, starting under load, highest productivity, and shortest turn radius, and scored its only second place in cab sound level competition.





Bicycling is one of many ways to see Bermuda. Here a couple pause to photograph a 17th century fort.

1973 Tour Wrap-Up!

It may seem that 1973 is about over, but there's plenty of time for you to take an enjoyable vacation with AMERICAN AGRICULTURIST and Travel Service Bureau. For instance, how about spending **Thanksgiving in Bermuda?** We guarantee it will be one of the most unforgettable Thanksgivings in your life! Dates for this air tour are **November 19 to 24,** and our home in Bermuda will be the beautiful, world-famous Princess Hotel.

One of the reasons our Thanksgiving in Bermuda vacation has been so popular in previous years is that while you're there, each person is free to choose those activities which have personal appeal. There is no scheduled sightseeing, but there are 101 things to see and do right at the Princess or within easy walking distance.

Whether you decide to explore the island by horse-drawn carriage, tiny taxi or on a bicycle, you'll find them all available at the Princess. Some of the things you'll probably want to see are 17th Century St. George, St. Catherine's Fort, Gunpowder Cavern, Devil's Hole, Crystal Cave, Lili Perfume Factory, St. Peter's Church, the Aquarium and the Botanical Gardens.

In Hamilton's famous shops, just a stroll away from the Princess, you'll find wonderful sportswear, Scotch cashmeres, British and Irish tweeds, china, perfume, silver — duty-free imports from all over the Commonwealth.

Then, of course, you can sun and swim to your heart's content, play golf at the world-famous Mid-Ocean Course, cruise to nearby Treasure Island for a barbecue lunch and calypso entertainment, fish in the surf, or go deep sea fishing for the big ones. Just tell your tour escort what you want to do, and all arrangements will be made for you.

Accommodations at the Princess are luxurious, and award-winning gourmet dishes are served every evening. In addition to its own dance orchestra, Island entertainers and big-name performers from Europe and the United States will help make your holiday exciting and memorable.

Send for the folder today and make your reservation soon.

Aloha Week in Hawaii

Hawaii is truly a tropical paradise, delightful at any time of year, but the beautiful Aloha Week festivities are an added attraction for our **Fall Hawaiian Holiday** from **October 13 to 25.**

Other highlights of our visit to the main island of **Oahu** are a cruise of Pearl Harbor and a circle tour of the island with stops at Sea Life Park, the Polynesian Cultural Center and Mormon Temple. We'll also see Iolani Palace, Punchbowl Crater and Paradise Park in Honolulu.

On the **Big Island of Hawaii,** we drive to Hawaii Volcano National Park while staying in Hilo and then go across the island to Kona, seeing Akaka Falls and passing through the vast Parker Ranch en route.

Maui is known as the **Valley Isle.** Here we'll see "the Needle," a fern-covered volcanic spire rising abruptly from the valley floor to a height of more than 2,000 feet, the Pali Coast and Lahaina, historic whaling center.

A few things we'll see on **Kauai, the Garden Isle,** are Fern Grotto State Park, Waimea Canyon (Grand Canyon of the Pacific), the legendary Menehune Fishponds and Kalalau Lookout with its breathtaking panorama of the Napali Cliffs and Valley of the Lost Tribes.

Come along on our Aloha Week Holiday in Hawaii!

Fall Foliage Tour and Reunion Weekend

Don't forget our **Fall Foliage Tour** from **October 6 to 14.** This is a deluxe motorcoach trip through Massachusetts, New Hampshire and Vermont just when autumn foliage is most beautiful. You can join it at either New York City or Albany.

A few of the things we will see are Old Sturbridge Village, Cape Cod, the historic places in Plymouth and Boston, Lexington, Concord, House of Seven Gables, lofty peaks of the Presidential Range, Old Man of the Mountains, a huge granite quarry, and the country's largest marble display.

And be sure to join us in Cooperstown, New York, for our annual **Get Acquainted and Reunion Mixer Weekend, October 19-21.** The Otesaga, beautifully situated on Otsego Lake, is well known for its gracious hospitality and delicious meals.

Cooperstown, itself, is a village of Museums — National Baseball Museum and Hall of Fame, Farmers Museum, Carriage and Harness Museum, Fenimore House, and others. There will also be travel films, slide presentations by tour members, prizes from around the world, and a preview of the American Agriculturist-Travel Service Bureau tour and cruise program for 1974.

Cost for the weekend is just $75.00, and we hope you'll come, whether or not you have ever been on one of our tours. This is a great way to get acquainted with our organizations and our travel programs. You just might decide to vacation with us this coming year! It's the nicest way in the world to travel!

Gordon Conklin, Editor
Box 370-T
Ithaca, New York 14850

Please send me without obligation on my part, the following tour itineraries:

Fall Hawaiian Tour _____ Reunion Weekend _____
Fall Foliage Tour _____ Thanksgiving in Bermuda _____

Name _____
Address _____
_____ Zip _____
(Please print)

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Pattern 450, which gives actual-size guides for the seat sides and for a jig to make the legs, is 50 cents. This pattern also is in the Pine and Maple Antiques Packet No. 53, which sells for $1.50.

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Livestock mart

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GRADE A DAIRY FARM, 200 acres, 180 open, best type corn and alfalfa, stone-free soil; 3 stanchion parlor, 65 free stall; 1,000 T. concrete, self-feeding bunker silo; 2 houses, outstanding neighborhood - $200,000.-00. Taxes approx. $1,000. Terms. Browning Real Estate Agency, Box 112, Culpeper, Va. 22701. Phone 703/825-0731.

PRODUCTIVE DAIRY FARM. Total 250 acres - 95 tillable, 50 wooded, 105 fenced pasture, creek watered. Owner reports gross of $44,000.00 from sale of milk, beef and calves. Barn w/51 ties, Hinman milkers, 600 gal. bulk tank, Badger barn cleaner, 2 Harvestore silos w/auto feeding system. Home 12 rooms, 5 bedrooms, oil H/S heat and new kitchen. All for $125,000 with stock - $155,-000. Strout Realty, Inc., Box 288, Cincinnatus, N.Y. 13040. 607/863-2381. Free local lists.

MODERN GRADE A DAIRY. Owner reports gross of $75,000.00 from sale of dairy products, calves and beef last year. 240 acres - 220 tillable - hay, corn, soybeans. Barn 36x99' plus new free stall, steel addition 44x160', 2 silos, one new w/100' auto feeder, Badger gutter cleaner and much more! Farm home 10 rooms, 5 bedrooms, newly remodeled plus 2 mobile homes. Come look at this operation! $175,000. Strout Realty, Inc., R.D. 2, Mannsville, N.Y. 13661. 315/-465-5405. Free local lists.

NOT FOR EVERYONE - A "Show Place" dairy farm of 206 acres as well as an excellent real estate investment with a price tag to match, located in the Albany, N.Y. area. Ideal situation for a family that has sold their farm to a commercial developer for an excellent price and would like to do the same thing again in another 5 to 10 years. This farm is one of N.Y. State's finest. Dairy barn cost $160,000 to construct 20 years ago. Has four nice homes plus a gigantic swimming pool. Located at intersection of two State Highways with an entrance to four-lane highway expected across from property - about 9 miles from major city. Can be purchased bare for $380,000 or with outstanding registered Guernsey herd (over 200 head - 110 milkers) and top line of farm machinery for $550,000. Financing available. Telephone Zar Benedict at 914/343-1108 or write Barmann's Realty Sales, Inc., at R.D. #4, Middletown, New York for free brochure.

FARMS FOR SALE

CATTLE INCLUDED . . . 203-acre New York stock farm with 20 head of cattle, baler, 2 combines and other farm machinery included. 100 acres tillable, good fences. 8-room country home in good repair, bath, new kitchen, new paneling, basement, forced air heat. 2 barns. Stockman's lucky find at $50,000. Free . . . new 264-page Fall Catalog! Describes and pictures hundreds of farms, ranches, town and country homes, businesses coast to coast! Specify type property and location preferred. United Farm Agency, 501-AA Fifth Ave., Suite 909, New York, N.Y. 10017. Phone 212/687-2623.

NEW YORK STATE - 398 acres, 250 tillable, 42x165 barn with 90 stanchions, pipeline for 70 cows, modern line of machinery and equipment. 120 head of Holstein cattle, good 8 room home, a very good buy. $175,000, complete. 326 acre dairy farm, 40x150 barn with 63 ties, concrete silo, modern line of equipment, 76 head of Holstein cattle, excellent buildings. $165,000, complete. 300 acre dairy farm, large home, apartment, excellent barn with 97 steel stanchions, one of the nicest barns we have seen in a long time. $165,000. Call: Richard E. Posson, Lic. R.E. Broker, R.D. #3, Norwich, N.Y. 13815. 607/334-9727.

700 COW MODERN DAIRY located in Mid-South. Has feed production, storage facilities, labor residences, high production milk base. 700 acres crop-land near Interstate. Excellent investment potential, liberal terms, or will consider property exchange. Charles Pilmer, Lane Appraisal Service, 8900 Manchester Road, St. Louis, Missouri 63144. Phone 314/-968-1000.

SOUTHERN PENNA.: 10 good farms, dairy, beef, and grain - 50 to 1,050 acres. Van Cleve Real Estate, New Oxford, Pa. 17350. Phone 717/624-8201.

WESTERN NEW YORK: Free stall farm 288 acres owned, about 300 leased, 150 acres alfalfa, 300 acres corn, excellent buildings, stock, equipment, 3 houses; 2½ million lbs. milk shipped in 1972. Other free stall farms for sale. Conventional farms with herd averages of 15,000+ lbs. on 67 head; another of 14,000# on 80 head. Both gravel farms. For details call, write Lester N. Fuller, Broker, Riceville Rd., West Valley, New York 14171. Phone 716/942-6636.

229A FREE STALL, excellent setup, nice location. 3 Harvestores, two concrete silos. 4 bedroom house and tenant house - only $325,-000. Cattle and equipment also available. 120-cow operation with heifer barn, 3 silos, machine shed, 4 bedroom house and two new trailers, $147,500. Several small farms and all types 60 to 1,000 acres. 160 acre dairy, barn for 74, 2 silos, large house, best of soil. Nice location. Owner retiring. Only $65,000. Try us. Mal-Tut Real Estate, 9 Court St., Auburn, N.Y. 13021. Phone 315/253-3813.

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A-1 DAIRY SET-UP! Cayuga County, Syracuse minutes. 196 acres nearly all tillable! Excellent 112' drive-thru barn with cleaner, 70' barn for young stock, 3 silos, 2 concrete! Bulk tank, spring pond piped! 2 good dwellings, modern conveniences! $85,000 - hurry! La Rock Realty, Martville, N.Y. 13111. 315/-564-5400.

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WANTED: DAIRY FARMS bare or stocked. Qualified buyers waiting. Paul Bouman, Salesman. Phone 914/895-2817 or Sheldon Ocko Associates, Inc. Phone 914/374-5611. P.O. Box 178, Route 17 M, New Hampton, New York 10958.

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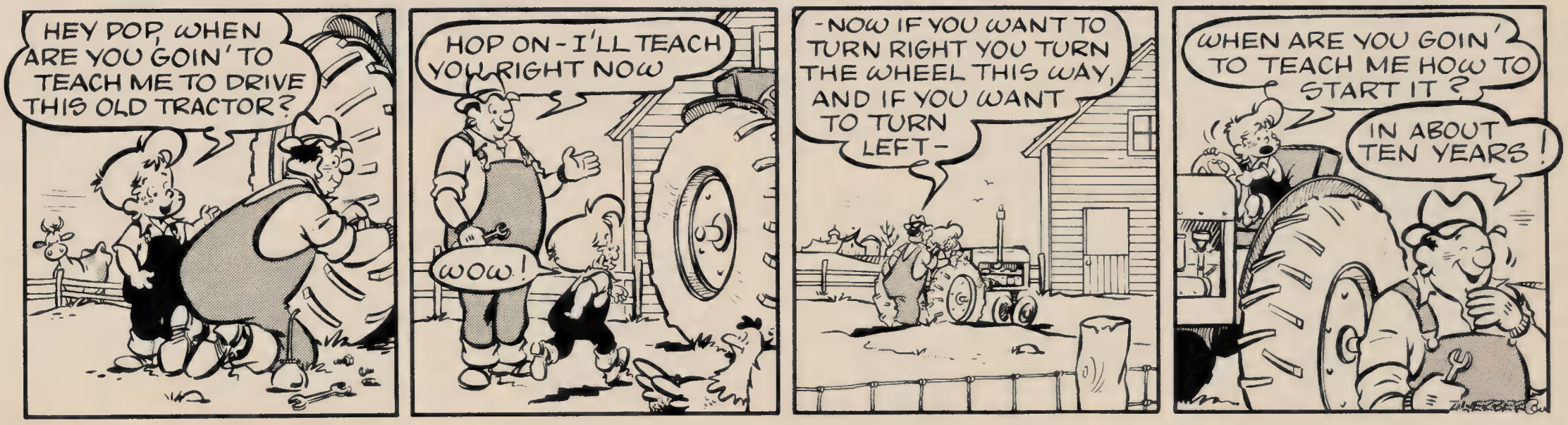
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"SPARE TIME PROFITS For Women" 25 proven moneymaking plans - $1.35. (Guaranteed!) Associates, 113D-18 Community, Shillington, Pa. 19607.

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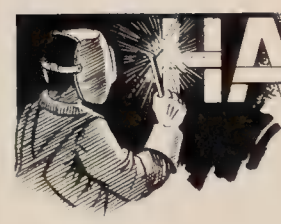
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CLOTHING FACTORY CUTAWAYS, 10 lbs. assortment for quilts, doll clothes, throw pillows, etc. $5.56 postpaid. Cutaway, Box 151-A, Weaubleau, Mo. 65774.

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HANDY on the Farm

Storage — Used all-metal truck transport boxes can sometimes be purchased for much less than the cost of a new building of comparable size.

Mounted on blocks near the feed bunk area, they make a good storage shed for grains and minerals used in hand feeding. In fact, they make handy storage for many items around the farm.



Anvil—A handy work surface can be made from scrap materials. This stand was made from a truck wheel, a large-diameter pipe and a short length of steel "I" beam. The unit is light enough that it can be rolled around the shop to where it is needed. The "I" beam provides a smooth, tough surface for pounding out flat materials.



An Angle — Fasten a heavy piece of angle iron to one edge of your work bench to serve a multitude of purposes.

A slot cut in the lower edge can act as a brace when you want to bend strap iron or rods. Weld a short length of heavy rod flush with the top to form a round edge when pounding out a curve on a piece of scrap iron.

A series of graduated holes drilled in the iron and through the bench top can be used to bend light rods, or to support surrounding metal when punching out rivets. A square hole will hold an anvil hardie.

Drive short wood pegs through the proper hole to make those odd-size dowels not available to match your project.

The large flat surface of the angle iron serves as a place to pound out materials.



Hoist — Scrap iron (mostly from an old plow frame) is used to make this hoist to mount on the tractor's three-point hitch. A log chain slides through iron rod loops on the underside of the beam. The beam itself is welded square pipe reinforced with a plate, and with steel rod.



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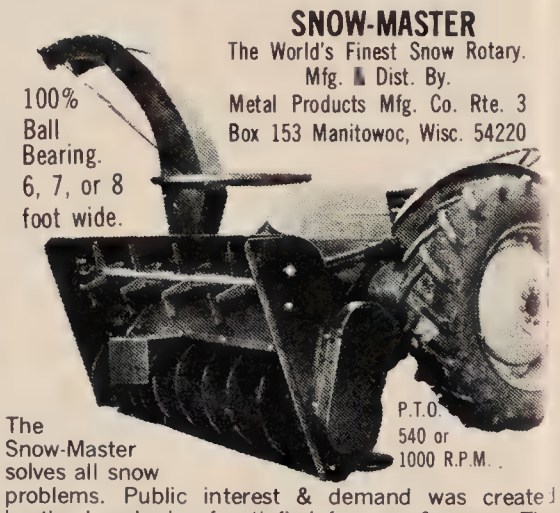
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CAN YOU HELP?

Mr. Joseph N. Carpenter, Sunrise Farms Inc., Star Route, Waverly, Pennsylvania 18471, wants to know the author of the poem "Grandmother's Old Armchair." He also wants to know the author and text of the poem which includes: "Keep heart of hope and you shall find contentment and a happy mind."

* * *

Ira Livingston, R. D. 5, Gifford Church Road, Schenectady, New York 12306, wants to locate a copy of the 1877 Currier and Ives print "Mama's Darlings."

* * *

Jessie M. R. Spofford, R. D. 2, Box 192, Auburn, Maine 04210, wants to get the book "The Bride's Fate" by Mrs. E. D. E. N. Southworth.

* * *

Mrs. Ben De Graff, R. D. 1, Box 769, Woodstock, New York 12498, wants to get a copy of a small book of essays by Alvin S. Fick entitled "Across the Fields."

* * *

Mrs. Paul W. Barden, East Lake Road, Ripley, New York 14775, wants to obtain a copy in any condition of the book "Early Settlers of the Passaic Valley" by Littell.

* * *

Mrs. Percy M. Jordan, R. D. 1, Little Genesee, New York 14754, wants a copy of "Empire Oil" by John P. Herrick.

* * *

Mrs. Lois A. Klatt, 12462 Alpo Road, Lyndonville, New York 14098, needs a few books to fill in the complete series of "Bobsey Twins Adventures" and "Hardy Boys Mystery Stories."

* * *

Mrs. Patricia Dominie, R. D. 3, Canton, New York 13617, wants to locate an old cash register of type found in early country stores.

* * *

Florence B. Niles, Star Route, Chatham, New York 12037, wants the words to the poem "Who Stole My Beautiful Leaves?" or a copy of the Wide Awake Story Book published around 1890 in which the poem appeared.

* * *

Mrs. Arthur G. Dean, 73 Dean Road, Marion, New York 14505, wants a copy of the book "The Sunbonnet Babies."

* * *

Mrs. Gayle A. Porter, R. D. 1, Clyde, New York 14433, would like operating instructions and a source of spare parts for her Royal sewing machine, patented 1897.

* * *

Mr. Paul J. Randall, South Vaughn Street, Springville, New York 14141, wants the book entitled "Genealogy of the Branch of the Randall Family, 1666 to 1879" by Paul K. Randall, printed by the Chenango Union of Norwich about 1879.

Rev. William S. Fairhurst, P. O. Box 412, Weedsport, New York 13166, wants to purchase "Success on the Small Farm" by Haydn S. Pearson, published by McGraw-Hill.

* * *

Mr. Wendell H. Davis, 86 Forest Street, Rutland, Vermont 05701, is looking for a horse collar measure.

* * *

Mrs. Perry H. Sanborn, 19008 Tilden Road, Hiram, Ohio 44234, would like the words of the poem in which "Don't spend all your money, my son, my son," is repeated several times.

* * *

Mrs. Lucy B. Reid, 650 Lydall Street, Manchester, Connecticut 06040, wants to buy a book entitled "Sara Crewe" which was published many years ago.

* * *

Mrs. M. S. J. Williamson, 1161 Brewerton Road, Central Square, New York 13036, wants information about Margaret Savage who worked on a farm in or near Waterville, New York, and later married Evan Jones.

* * *

Mr. Howard King, Jordonville, New York 13361, wants a copy of an old poem entitled "Socre Cudedecut's Cat."

* * *

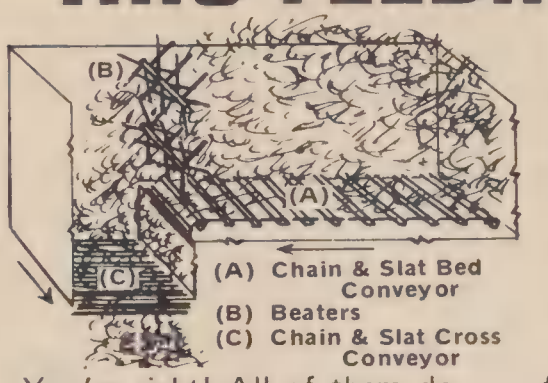
Miss Catherine Sullivan, 136 North Main Street, Cedarville, New Jersey 08311, wants to buy "The Fourth King" by Henry Van Dyke, printed by Harper Brothers.

* * *

Mrs. Eugene Rosenberger, R. D. 2, Quakertown, Pennsylvania 18951, wants a copy of the poem which includes: "Twas a summer's day in winter. The snow was raining fast. The barefoot boy with shoes on stood sitting in the grass."

* * *

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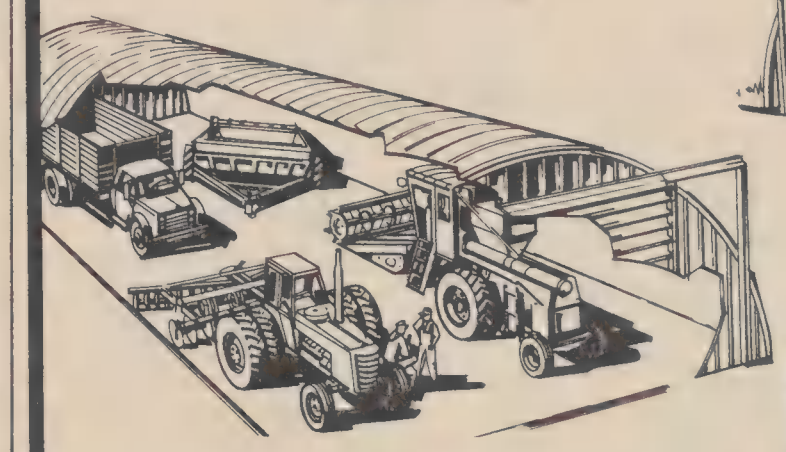
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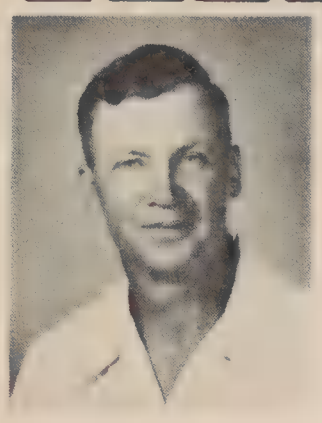
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Farm News, Notes and Nonsense

by Harold Hawley,
Weedsport, New York

HOUSE BUILDING VS. PHASE 4

Everyone can recite his own special version of how poorly and inequitably government efforts to regulate inflation have worked in some area where his interests lie. Some people have doubted or forgotten that competition . . . and millions of decisions daily by all of us selfishly trying to earn a profit . . . makes for the most progress and the fastest, fairest distribution of the goods, services, and pleasures of the land. A period of price ceilings, and the uncertainties of what someone in Washington will do next, should be a great reminder!

We are exceedingly fortunate to have had a builder who anticipated his needs and ordered well ahead; delays in deliveries were at a minimum. Yet one had to be blind and deaf not to see what was happening in the building trade as the various controls went into force or were anticipated.

Reluctant

Probably most noticeable was the reluctance of anyone, from manufacturer to retailer, to carry an inventory. Sure, prices were high, but that alone would not keep business from being conducted normally, and that means anticipating the market and your needs and carrying reasonable inventories. So what happens when price is determined not by competitive decisions, but by government regulations?

First, any inequities existing in the original base period (seasonal supply situations, abnormal supply or distribution experience, or any other market abnormality which usually would soon be reflected in changes of prices and supplies) just get frozen into the schedule of prices. Except for the slow and unsatisfactory route of asking for exception and adjustment through the regulations, there is little remedy for the maladjustment.

Add to this the certainty that sooner or later the regulations will be changed . . . relaxed, abandoned, extended, rolled back, or whatever . . . and the impossibility of guessing what this will mean to one's own business profits results in an unwillingness to make commitments.

Avoid Risk

Everyone goes on a hand-to-mouth basis, mostly to avoid risk. In a few cases, trading is restricted to anticipation of higher returns later.

An outstanding example of this is the banking industry. With interest rates rising during the summer, tight money, and a prospect of a higher ceiling on mortgage interest rates, a whole series of new requirements for the borrower became standard. Most were merely delaying tactics to stall the deal until interest rates were higher. After all, no lender wanted to commit himself to a long-time mortgage deal at a lower rate of interest than good bonds were currently paying . . . even if there was an escalation clause in the mortgage.

Well, back to house-building where we started. At one time or another, we saw wallboard rationed to the dealers. Paint of some kinds was almost a collector's item. Delivery on lumber and such things as doors and windows took two, three or four weeks.

I'm sure it was little different in many other areas of the economy. The point is that under normal competitive conditions these maladjustments are kept at a minimum merely because it is good business to be in a position to serve one's customers!

MINIATURE FARMING

Having once commented that we were planting a garden in last year's corn stubble with minimum tillage (i.e., hoe out a six-inch-wide strip and plant), we thought it only proper that the results be reported. It's easy to do this without exceeding the bounds of modesty!

Actually, the little early stuff . . . lettuce, radishes, beets and carrots . . . did fine. So far as we could see, the only drawback to minimum tilling was the extra work of controlling weeds. Naturally, it was tough howing between the rows after the ground dried out and hardened.

The sweet corn was the real disappointment. An amateur's guess would go like this: the fertilizer used was placed on top of the ground beside the row and possibly never got down to where it would have done the most good. Second, the corn did reasonably well at first, then seemed to lose interest in growth and good color.

Just maybe, and we're only guessing, the root system outgrew the little worked-up space in the row and didn't spread out or down into the unworked soil. Or possibly the stand was too close for the available plant food. Or maybe it was several other reasons. At any rate, while we had corn early and continuously, the ears just weren't up to expected size and quality!

Tomatoes, on the other hand, did great. Possibly by digging a hole to set the plants into, and by putting fertilizer in the bottom of the hole, we avoided the problems that plagued the corn. By next year we will have made some kind of an arrangement to plow and fit in a more conventional and easier manner.

We seem to have gone full circle on this gardening thing. Years ago, when I spent my days chained to an office chair, a garden was a great pleasure. When I was farming, gardening was more of the same, but giving less pleasure than the real farming, and returning far less per hour of effort. Consequently, as I understand happens on a lot of farms, the success of the garden really hinged around the efforts of Doris and the kids. Now with more time available and devoid of the pleasures of actual farming, I find the garden a much greater attraction.

IT'S NO ACCIDENT

Almost invariably when we go somewhere we are impressed by the abrupt changes in vegetation. Many times, even a blind man could see changes in soil type, drainage, topography, previous land use or erosion . . . which makes it easy to understand why plants and trees of various kinds either prospered or ceased to grow.

All too often, however, there is little to suggest why the natural ground cover changes so dramatically and completely from one cultivated field to the next. From farm to farm, it's not surprising to find variations in what is grown, even within an area of considerable uniformity. Personal preference and experience are part of the explanation. A few folks, even in a predominately dairy area, just don't want to keep cows. They prefer beef or poultry, or cash crops or vegetables.

Adapted

Many areas in the country are adapted by soil, climate and markets to the production of such a wide range of products that this individual preference can be expressed. Experience eventually shows the limits within which these variations are profitable. For example, beyond a relatively narrow belt south of Lake Ontario, commercial apple production has largely disappeared because of the spotty profit experience due to greater risk of spring frost beyond this narrow zone.

When we get into some of the more specialized one-crop areas of the country, a family choosing to do something different had better have something pretty good going for it. In the dry-land wheat areas, the alternatives are quite limited. Even so, someone will see opportunities to cash in on a special situation such as a local or roadside market outlet or something produced by the special skills or the cheap labor of his family.

Reasons

Most such non-typical farming operations do have logical explanations not necessarily readily apparent from the road. In general, this is also true of natural cover and vegetation. Plant and tree varieties can frequently be explained and even anticipated.

Some changes just continue to defy explanation. Example: traveling north on Route 81 pretty well up toward Watertown, New York, one observes mixed stands of cedar and nut trees. Where else can you find that combination, and why?

In northern Nebraska, two-thirds of the way across the state in open range country, there's a strip of land perhaps four or five miles across that is pretty well covered with juniper trees. The boundaries of this stand of trees are abrupt, right out in the middle of great pastures . . . and not along property lines, either. Dozens of such situations have puzzled us over the years. Maybe some of you can brighten us up.

CONSISTENT WE AREN'T

Recently the local papers carried stories of the formation of a committee to save the railroad. The intent was to prevent the discontinuance of freight service from Ithaca, New York, northward to an agricultural community, and to a power generating plant (coal) and a large feedmill and business. Nothing wrong with all this except the inconsistency demonstrated.

For years, almost everything we have done or failed to do has had the effect of kicking the railroad in the teeth . . . if it has any left. We have failed to pass corrective legislation which would have put an end to the crippling costs of featherbedding. No industry could prosper with the extra labor costs that labor unions have inflicted on the railroads. As a society, we did little or nothing about this evil until it became too late.

Regulation

Most of us have been sitting on our hands while a public service commission did almost nothing to adjust rates to give the railroads some chance to prosper. While we all recognize that we need the railroads, our efforts were directed toward getting **lower** freight rates on the items we used, such as feed, fertilizer and lumber.

Of course, each community saw the railroad as a nice source of tax revenue. Fine . . . up to a point! A few towns, including the one where we live, had a nice thing going. We had three railroads and they helped out on the tax burden. If so many of the towns hadn't done as we did . . . that is, got all we could while we could . . . just maybe there might still be a taxable facility to serve the area.

At the risk of sounding just too naive, this country boy would like to suggest that it is not enough to get a court order that would prevent the discontinuance of service and thereby prolong the dying convulsions of the railroad. Maybe the committee could help deal with the causes of the ill health of the Lehigh Valley Railroad, and most of the other rail lines around the land. Relief from some of the maladies that are emaciating the profit opportunities might reveal that there is still a little life in the old frame yet!

Editor's note: Harold Hawley's address is Weedsport, New York 13166.

READER SERVICE



READER SERVICE CLAIMS SETTLED

NEW YORK

Mr. Claude Davis, Lansing ..... $ 1.50
(refund on catalog)
Ms. Reba Hinman, Potsdam 24.98
(pay for lost shipment)
Mr. Emmett Witte, Phoenicia 11.40
(refund on seeds)
Mrs. John Poole, North Rose 6.45
(refund on seeds)
Mrs. E. W. Carpenter, Conklin 20.00
(partial payment)
Mrs. Samuel Spagnola, Smithtown.. 7.85
(refund on order)

PENNSYLVANIA

Mr. Alfred Bahr, Dushore..... 10.81
(refund and credit)
Mr. Vernon Canfield, New Albany..135.00
(pay for posts)
Mr. and Mrs. Clifford Pye,
Genesee 80.95
(refund on order)

NEW JERSEY

Mr. John Durna, Hackettstown 1.35
(refund on bulbs)

MAINE

Mr. Garret Van Der Heide,
Thomaston..... 2.30
(refund on order)

CONNECTICUT

Mr. Theodore Andersen, Brooklyn .. 4.25
(refund on roses)

CHARITY

Have you ever been carried away by an eloquent speaker to the point where you want to rush home and write a whopping check to help him with his "cause"? If he was a super-salesman, you might even consider calling your attorney to change your will.

You are not alone. Charming the public for the purpose of raising money is nothing new. The old-time medicine man was adept at it. Of course, the funds he raised were obviously for his own use.

In that respect, he was far more straightforward than the occasional modern fund-raiser who plays on the sympathies of his audience by picturing the horrible plight of children in a far-off land. Who can resist such a plea? We suggest you should, at least until you can find out what will become of the money you may give.

If you are tempted to contribute a substantial amount, check on the organization through the Better Business Bureau or Chamber of Commerce in the city where it is located – or write to READER SERVICE. We cannot advise you on how you should spend your money, but we can try to check on the worthiness of possible recipients.

Another course of action might be to request from the organization a statement as to disbursement of funds, particularly the percentage of donated funds spent on the charitable cause.

There are many legitimate fund-raising groups through which a large share of money collected is used for the cause for which it was intended. It costs money to solicit contributions – but when more money is spent for administrative and other expenses than is spent to help people, the warning flag should be raised.

BOOKS AND RECORDS

Readers were warned in our June column to recognize the extent of commitments made when joining book or record clubs.

About the middle of June, New York State's Attorney General announced the signing of an assurance of discontinuance by owners and operators of about 32 book clubs and reading programs. Owners and operators have agreed to:

1. Refrain from falsely claiming through advertisements that books are available at nominal charge without any conditions or obligations attached.
2. Disclose to consumers that they become members of a book club on acceptance of their applications.
3. Disclose that the consumer must return merchandise within a specified time when free examination is offered.
4. Disclose that the consumer must notify the club if he does not wish a future selection.
5. Disclose that the consumer is obligated to purchase a minimum number of books during a specified period.
6. Disclose that the right of cancellation may be exercised only after completion of a specified number of purchases.
7. Reveal that billing charges will include postage and handling costs.
8. Disclose that the member will have at least ten days to return forms sent to him by the club.
9. Clearly and conspicuously state in advertisements the terms and conditions of membership.

Before getting involved with such clubs, readers should be sure that they really want the types of books or records for which they will have to pay and that they are going to have the money to pay for the items required to be purchased.

A TOUGH YEAR

Nurserymen have been plagued with problems this year. The weather was infavorable in some areas. Above-normal demands developed because the high cost of food drove more people into the gardening business.

Apparently many housewives decided to grow their own onions after taking a look at price tags in local stores. Onion sets and plants were the items most often missing from partial shipments; but there were also many complaints from readers about late shipments and poor quality.

Complaints were not handled promptly by some companies; and, instead of refunds, some issued credits against 1974 orders. Such credit was not much help to the person who had to go elsewhere for items he wanted to plant this year.

It has been a frustrating year for all concerned. We can only hope that the weather will be more favorable next year, and that nurserymen will be in better position to handle orders and complaints.

It Sure Helps!



Leonard Kimmich an "outstanding young farmer of the year" from Marathon, N.Y. received $1668.55 payment from his local agent Ray Ennis of Horseheads, N.Y. Mr. Kimmich was giving a pill to a cow when she threw her head and smashed his hand against a pipe. What he thought to be a minor injury proved just the opposite. His wrist was fractured, nerves crushed and ligaments torn. For a while it was a question whether he would ever be able to use his right hand. Running up medical bills well over $1000 and hiring extra help, the North American payment of $1668.55 from a combination of policies sure helped.

OTHER CLAIMS PAID

A friend's name may be in this list.

James Marsh, Belmont, N.Y. ..... $ 184.28
Caught in pulley—inj. finger
Charles Wenrick, Franklinville, N.Y. 1023.64
Fell on sidewalk—broke jaw
Warren Cowen, Conewango Valley, N.Y. 1735.72
Truck accident—broke leg, ribs
Paul Morse, Moravia, N.Y. 1099.53
Tree fell—broke back
Harold Smith, Auburn, N.Y. 588.00
Hit by ram—inj. back
Joseph Chiavetta, Brant, N.Y. 1500.00
Fell on city bus—head injury
Ted Dewey, Clymer, N.Y. 136.42
Caught in auger—cut foot
Frank Leone, Fredonia, N.Y. 825.35
Fell off truck—inj. back
Edward O. Swartout, VanEtten, N.Y. 1106.43
Fell on a rock—broke hip
Russell Park, Norwich, N.Y. 206.90
Drove splinter under fingernail
James Barnes, Plattsburgh, N.Y. 1050.00
Fell off scaffold—broke rib
Dennis Bechard, West Chazy, N.Y. 455.31
Caught in chain—inj. hand
Garry Griswold, Preble, N.Y. 1107.14
Caught in PTO—broke ankle, finger
Henry Whitenight, Delhi, N.Y. 782.76
Gas ignited—burned face
Theodore Roney, Andes, N.Y. 528.73
Bike accident—broke arm
Robert Dole, North Collins, N.Y. 1565.75
Kicked by cow—broke leg
Richard Woodworth, Constable, N.Y. 937.75
Barn door fell—internal injury
Doris Harms, Batavia, N.Y. 200.00
Slipped and fell—inj. ankle
Eleanor Biskupich, Greenville, N.Y. 102.84
Caught in meat slicer—cut finger
Joseph Callahan, Sr., Poland, N.Y. 111.42
Stepped on nail—inj. foot
George Marko, Fairfield, N.Y. 219.01
Fence wire broke—cut eyelid
Joseph LaLonde, Jr., Philadelphia, N.Y. 1810.00
Fell off cat walk—inj. back
Charles Williams, Jr., Watertown, N.Y. 680.20
Pounding fence post—steel hit eye
Gertrude Adams, Croghan, N.Y. 155.85
Tripped over dog—broke collarbone
Gerald Hoppel, Castorland, N.Y. 226.22
Switched by cow's tail—inj. eye
Robert Yunker, Leicester, N.Y. 150.52
Shut in car door—inj. thumb
Fred Paugh, Cazenovia, N.Y. 459.30
Struck by jack handle—inj. chest

Charles Breslawski, Hamlin, N.Y. ..... $ 341.21
Fell off forklift—broke arm
Walter Masi, St. Johnsville, N.Y. 253.56
Caught in press—inj. thumb
Laurie Edick, Boonville, N.Y. 570.00
Fell off tractor—broke neck
James Rupert, Liverpool, N.Y. 150.00
Sliding into base—broke ankle
Richard Carlson, Canandaigua, N.Y. 1347.16
Knife slipped—cut fingers
Walter Lepski, Pine Island, N.Y. 122.14
Loading onions—inj. elbow
Thomas Gerhardy, Holley, N.Y. 267.00
Motorcycle hit by car—inj. back
William Overton, Parish, N.Y. 577.74
Caught in shear pin—inj. hand
Michael Kuncik, Richfield Sprgs., N.Y. 585.00
Tripped by dog—cut scalp
Frank Green, Schenevus, N.Y. 574.44
Cutting tree—inj. leg
Sherman Herrington, Hoosick Falls, N.Y. 571.42
Hit by tailgate—inj. back
Terry Mouthorp, Canton, N.Y. 1300.00
Bicycle hit by car—broke leg, hip
Marion Bullock, Edwards, N.Y. 951.03
Auto accident—broke ribs
Lionel Lambert, Sharon Springs, N.Y. 160.00
Fell into elevator—cut leg
Don Freier, Seneca Falls, N.Y. 248.18
Playing football—broke leg
Donald Rice, Jr., Bath, N.Y. 509.40
Thrown from truck—broke ankle
Audrey Thorsen, Avoca, N.Y. 618.82
Fell against chair—broke arm
William Visscher, Nichols, N.Y. 408.45
Thrown from horse—broke arm
Elsie Searles, Ludlowville, N.Y. 360.00
Fell pulling feed cart—broke arm
David Otto, Palmyra, N.Y. 1930.00
Scaffold collapsed—inj. back
Elvin Fisher, Ontario, N.Y. 329.57
Caught in belt—broke arm
Paul Nickerson, Arcade, N.Y. 1142.15
Playing football—broke leg
Edward Austin, Troy, Pa. 1296.86
Hooking team, trees flew—broke leg
Christopher Pettit, Juliustown, N.J. 150.65
Pulling hay from chopper—cut finger
Gerben Aukema, Sussex, N.J. 162.86
Cleaning slicer—cut tendons
James Ballantine, Sr., Proctorsville, Vt. 449.53
Slipped from ladder—broke ankle
Paul Lehouillier, Johnson, Vt. 1197.96
Struck by cow—internal inj.

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by Amos Kirby
New Jersey Editor

Assessment changed

THE New Jersey Farmland Assessment Law has been drastically changed. As explained by Secretary of Agriculture Phillip Alampi, the new regulations require eligible land to involve five or more acres. Keep in mind that the five-acre unit becomes of greater importance in the taxed value starting with the 1974 assessment. That five-acre unit must produce crops totaling $500 per year during the previous (1972-'73) two-year period.

If the unit or farm contains more than five acres, the additional land must average to earn $5 per acre per year for all acreage above the initial five acres. Woodland and wetland must show an income of 50 cents per acre over the past five years.

One thing seems certain . . . to receive any tax benefit, land must be kept under cultivation. There are critics of the farmland assessment program who claim that when a farm is purchased under contract at a price above its value for agricultural use, it should be taxed on the basis of the sales price.

The critics are usually non-farm taxpayers who have a very limited knowledge of farm production. If this land is kept in production, it can contribute much to alleviate the food shortage now existing.

FOOD SHORTAGE

It takes a publication like the AMERICAN AGRICULTURIST to present the farmers' side of the mounting costs of producing farm products. The urban publications devote columns to the rising retail prices of foods.

A late July report issued by the New Jersey Crop Reporting Service is the first clear statement on what farmers are doing to increase food supplies. Secretary of Agriculture Alampi states that corn plantings are up by 29 percent and soybeans by 12 percent, with other grains showing smaller but significant increases. Keep in mind that these increases may largely be confined to crops that are fully mechanized, and where high labor costs have been reduced.

If one looks at the important vegetable area in the lower part of the state, one finds (unofficial) that corn and soybeans are growing on land that heretofore has produced vegetable and processing crops.

The press and the public know little about the reduced production for 1973, largely due to unfavorable weather. Few crops have escaped. This applies to areas from Cape Charles, Virginia, northward. A few illustrations include the acreage of onions in the Cedarville area, grown from sets that have been a complete failure. It is agreed that the white potato crop has been severely damaged by excessive moisture. One large owner estimates a 200-sack yield, well below the normal crop of 250 sacks per acre.

Rain and high temperatures have cut yields of fresh tomatoes to the lowest in many years.

LOOKING AHEAD

The public fails to realize that it may take at least a full year to get agricultural production back to normal.

There is another question, and it is basic. Will $2 pork chops and $1-a-dozen eggs induce hog growers and poultrymen to step up production in the foreseeable future to bring prices back to a 1972 level?

My intensive seven-month study of crop production indicates that growers are hesitant to expand production (other than grain) unless there is assurance that prices at the marketplace will cover production costs plus a modest profit.

We are in a new ballgame. A strong consumer demand, a farm labor shortage, hunger around the world, and a growing demand for meats in all emerging nations are factors to consider as one approaches the 1974 crop year.

By the way, here's a potential yardstick that the writer has been discussing from time to time . . . $2 pork chops and $1 eggs are comparable to $5,000 automobiles and $30,000 homes, and the demand has never been greater.

PROMISING CHEMICAL

The New Jersey Extension Service believes that Ethrel will be a promising chemical to speed up ripening of tomatoes for processing. It will be particularly helpful on farms where the crop is harvested mechanically.

Ethrel is a commercially-produced growth regulator like that which occurs naturally in the tomato plant. It releases ethylene gas which promotes natural ripening.

Spraying fields with Ethrel when 20 to 25 percent of the fruits by weight are ripe or pink steps up the full maturity, and means larger yields with once-over harvesting. The spray should be applied about two weeks before the crop is harvested.

UREA IN SILAGE

Dairy experts urge adding urea to corn silage; the recommended amount is 10 pounds per ton. This will increase the protein equivalency of the corn silage and permit a reduction of the protein level in the grain mix next winter.

Urea is a most important additive to dairy feed, but do not overdo it. A limit of 2 percent by weight should not be exceeded . . . that is, 40 pounds per ton. Beyond this limit, the feed may become unpalatable.

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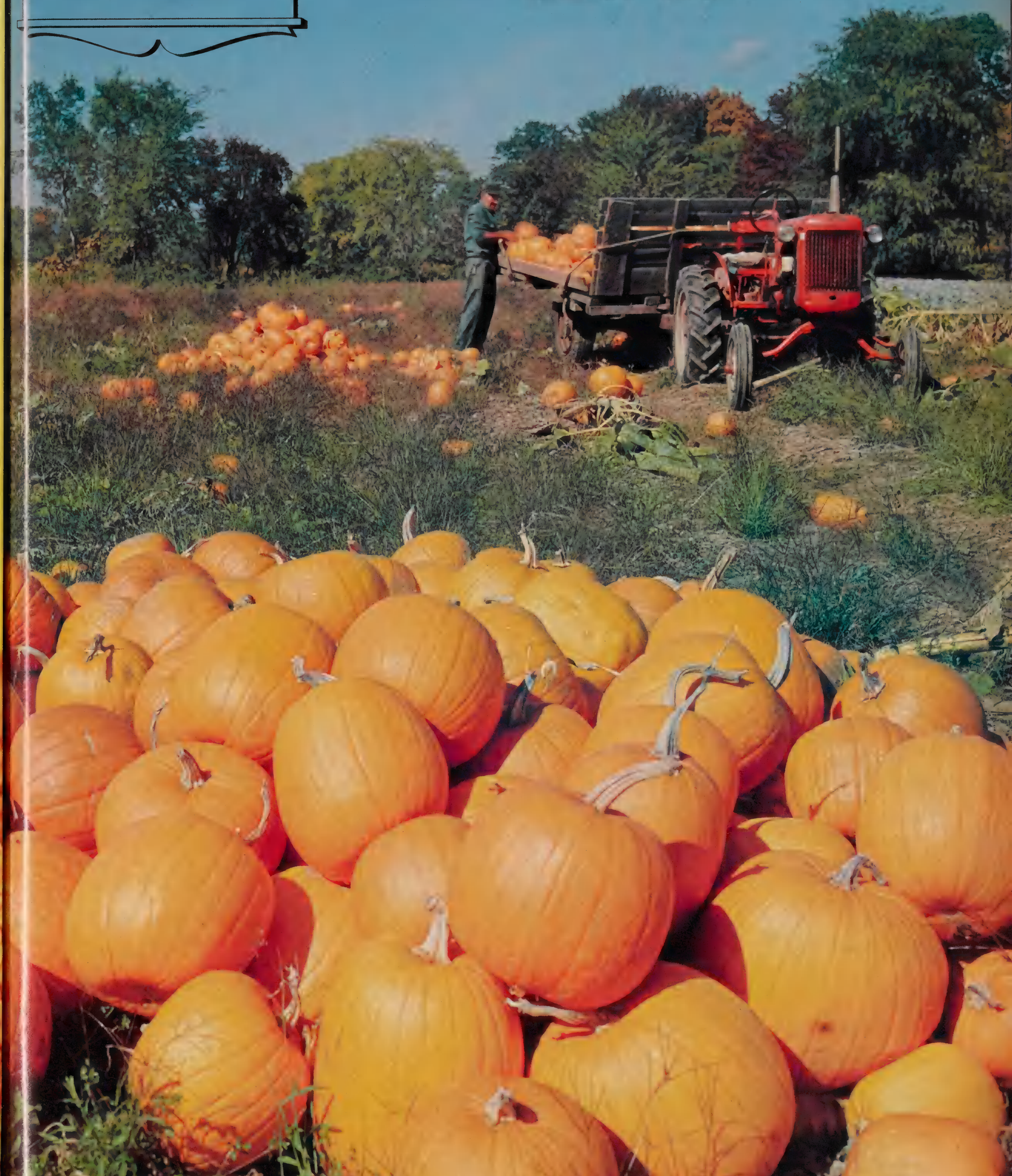
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For The
Northeast
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OCTOBER 1973

American Agriculturist
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OUR COVER

The earth yields up its bounty amidst the beauty of fall . . . in this case pumpkins for pies and decorations. Dominick Dzenis has for many years operated a farm in the Connecticut Valley near South Deerfield, Massachusetts. Photo: Herbert Shumway

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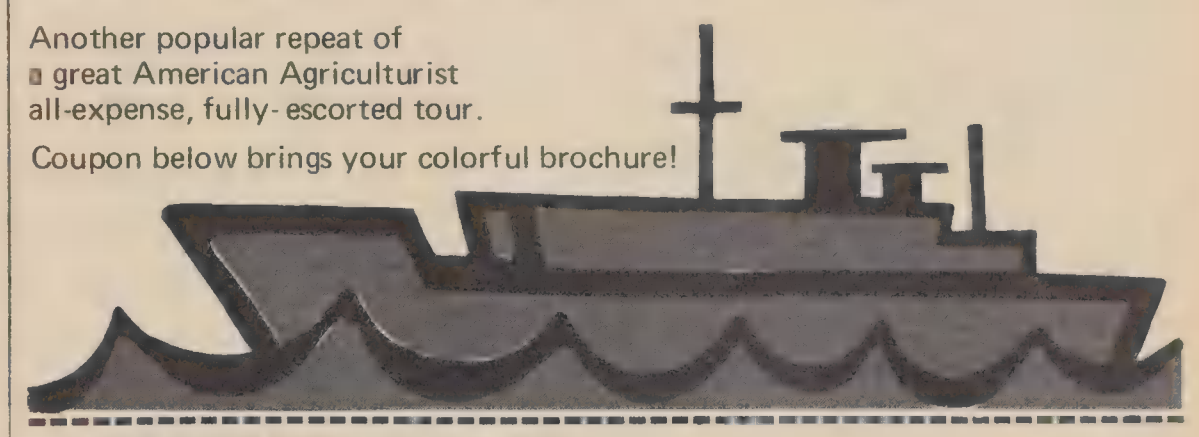
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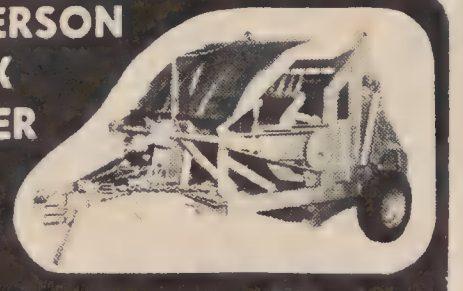
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Dollar Guide

ALL-OUT FARM PRODUCTION is hope of U.S. government for 1974. New Agriculture Act calls for target price of $2.05 per bushel for wheat, $1.38 for corn. Each producer will be eligible to receive check from government for difference between average national price and target price ... on yield from allotment acreage only. No set-aside requirement for 1974, and no conserving base requirement for 4-year life of new law.

A 1974 Census of Agriculture, once intended to be "skipped," will be taken.

Forestry program for small woodlots authorizes $25 million annually to cost-share improved forestry practices.

FLUID MILK PRICES in all federal orders have been rejiggered to relate milk prices more closely to higher costs. N.Y.-N.J. blend price for September to be about $8.33 per cwt. New Jersey raised minimum retail milk prices two cents per quart as result of higher prices to farmers resulting from move ... a similar retail price increase is expected in most areas.

Regional Common Marketing Agency (a coalition of most northeastern dairy cooperatives) had already announced September price of $8.75/cwt. for Class I, $6.75 for Class II.

Soaring costs force dairymen to run hard just to keep even profit-wise!

PRICES PAID U.S. FARMERS rose 23 percent in first half of August and made headlines ... but wholesale farm prices fell by 11 percent during 23-day period between August 14 and early September. Illustrates point that farm prices roller-coaster up and down ... when other prices (especially labor) go up, they stay up.

EGG PRICES predicted by Poultry Survey Committee to be 59 cents per dozen Oct.-Dec., 55 cents Jan.-Mar. '74, and 48 cents Apr.-June.

PROCESSING APPLE PRICES in western New York in range of $6.75 to $8.00 per hundredweight ... up sharply from previous years. Apple Marketing Order assessments are now 4 cents per bushel for fresh-market apples, 5 cents per cwt. for processing, 3 cents per cwt. for juice apples.

CORN-DRYING FUEL is likely to be short this fall. A firm commitment for delivery of fuel should be made by now. Consider alternatives: acid (Chemstor, Ortho Preservative, Propcorn, or Sentry No.1) applied on high-moisture corn for storage most anywhere under cover ... high-moisture corn in sealed or regular storage ... or even ear corn stored in cribs.

DAIRY OUTLOOK worldwide is reported by United Nations: "World dairy market faces growing surpluses. Supplies of milk products, particularly butter, should remain ample and prices likely to weaken as stocks of butter and skim milk powder rise."

President Nixon recently authorized import of 100 million pounds of nonfat dry milk into U.S.

SILOS EXEMPT from real estate taxation ... now law in Pennsylvania (effective January 1, 1974). Keystone State farmers should notify assessors now of silo situation on each farm.

EXPORTS of U.S. farm products set a whacking record of $12.9 billion in fiscal '73. World grain production up from last year, but supplies predicted to remain tight. U.S. exporters are already committed to send a billion bushels of wheat overseas in current marketing year ... plus a billion bushels of corn and 500 million bushels of soybeans.

SILO OPERATOR'S MANUAL available for $9.75 each from National Silo Association, 1201 Waukegan Road, Glenview, Ill. 60025. Includes management tips, preventive maintenance, safety ... and an equipment section to be completed with vendors' literature at local level.



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Talk about 11 MF models.

The line starts at the 38-hp MF 135, with an engine that's economy champ of its class—moves through nine evenly spaced models—and peaks at the giant MF 1800 with 180 drawbar hp!

Special models for special jobs.

We make some of the small Masseys in versions primarily for row crop, vineyard or orchard use. And some are tailored for low profile and high ground clearance, too.

With a range this wide to choose from, it's easy to find the perfect tractor for just about any job you do. Of course, you get advanced Ferguson hydraulics on every one.

Talk about the newest Masseys.

Check out the bold styling, the rugged design of our four 80 to 140-hp models. Proven drive trains. And there's a new long-life clutch on the MF 1105, 1135, 1155 to keep you on the job. Removable panels, optional tilt-back cab and other time-savers speed up servicing when it's needed. And for all-around comfort, these new MF tractors are hard to beat—especially with that big, quiet MF cab!

Finally, the 150-hp MF 1500 and the MF 1800. With powerful Caterpillar V-8's and 4-wheel traction, they take on big implements and big-acre fields that lesser machines just can't handle.

Your dealer has the details.

Talk with him soon. We think you'll agree—to get the right tractor for the jobs you do, you've come to the right man.

Three easy roads to Massey equipment.

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Your MF dealer can put new equipment to work for you with the most flexible credit plans in the industry.

Rent it.

MF's Rental-Purchase plan lets you use new MF machines—without buying! If you decide to buy later on, up to 100% of your rental payments can go toward the purchase price.

Or lease it.

Here's the modern way to plan your finances. You get the machinery you want without tying up working capital. And this plan is flexible, so we can fit your needs.

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Lactorium – A two-day open house on October 11 and 12 will demonstrate the new Chore-Boy Turnstyle Lactorium at Baum Dairy, near Jackson, Michigan. The building and cow-handling system for the Baum family's 400-cow herd were built around the Lactorium, rather than trying to fit the unit into existing buildings. The result is said to be an especially efficient operation with a milking rate of more than 100 cows per hour. Baum Dairy is approximately 10 miles west of Jackson on Interstate 94, then 6.7 miles north from the Parma exit.

Gatorade – Cayuga County, New York dairymen Ed Fessenden and George Saxton report that their vet has found Gatorade to be an effective drench for sick calves. A high-energy beverage developed for football players, Gatorade reportedly contains some electrolyte. Maybe that's why very few football players have scours!

Demand Feeding – Stanley Gaunt, professor of animal science at the University of Massachusetts, reports that Dwight Dellert of Ashley Falls is the first dairyman in the area to use magnetically-activated feeders that enable his high producers to eat as much grain as they want as often as they want.

The cow wears a collar with magnet attached. When she puts her head into the feeder, the magnet activates the feeder to deliver about a half-pound per minute of concentrates from storage bin to feed box.

The cows Dellert has placed on the magnet program have eaten about 10 pounds of grain per day, and average daily production per cow has increased by more than 14 pounds of milk. If a cow doesn't produce 70 pounds or more of milk per day, Dellert removes the magnet.

Additions – Dairylea Cooperative has long been known for its milk and dairy products. Now it's also in the bottled spring water business, as well as selling orange juice under its own brand name. And the first Dairylea-owned cheese shop is in business near Washington, D.C.

The spring water is being marketed in a joint venture with the National Water Corporation.

Big Business – Retired county agent Don Huddleston has prepared a brochure about New York's biggest dairy county in the North Country. It describes the soil resources, climate, and markets of St. Lawrence County . . . pointing out that agriculture in that county brings in more 70 million dollars annually.

The brochure is intended to call to the attention of everyone that agriculture is far more than farming . . . whether in St. Lawrence County, or anywhere else. A copy is available from the St. Lawrence County Chamber of Commerce, Drawer A, Canton, New York 13617.

Mastitis – Cornell researchers report continued success with a combination of teat-end dipping and dry-period therapy to control mastitis in dairy cows. Commercial Clorox® (4 parts to 1 part water) and Bovadine® were used to make solutions for dipping teat ends after each milking.

At the completion of a lactation all quarters of each cow were treated with a million units of penicillin and one gram of dihydrostreptomycin.

The combination of these practices did a remarkable job of improving mastitis control in the test herds.



One of the pleasanter duties of New York's Commissioner of Agriculture Frank Walkley is to congratulate Empire State dairy princesses . . . (l. to r.) New York State dairy princess Melody Hector of Swan Lake, alternate Sandra Sorochinsky of Maine, and Nancy Powers of Scipio Center, named "Miss Personality" by the other contestants.

Melody lives on a 300-acre dairy farm in Sullivan County . . . father Howard Hector is a Dairylea member. She will spend part of the coming year speaking up for milk and dairy products far and near.

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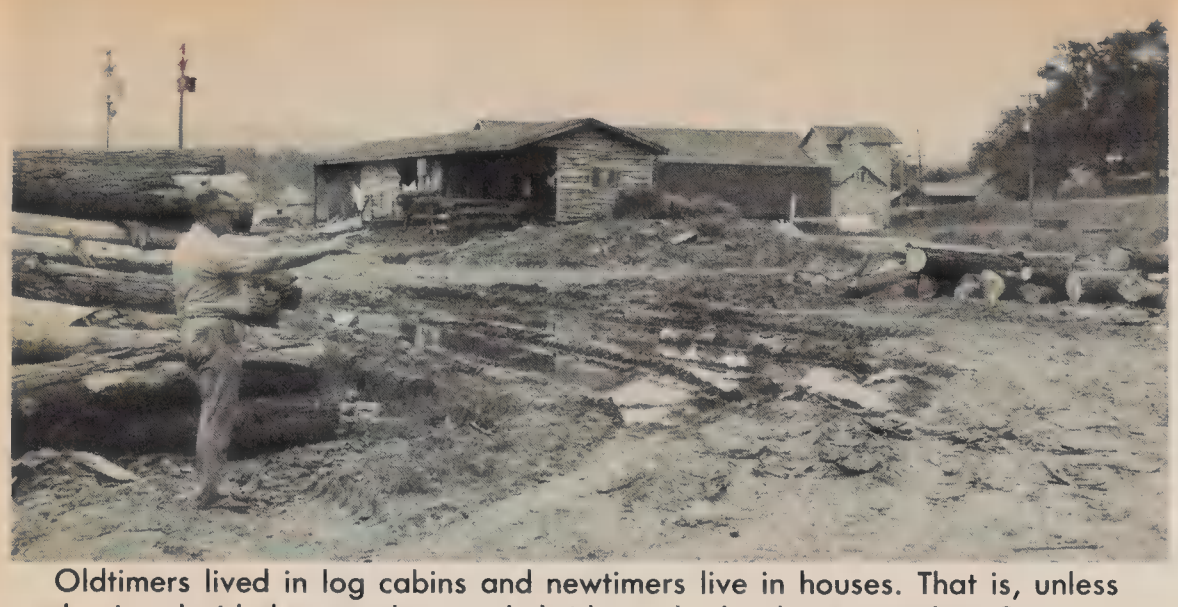
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Oldtimers lived in log cabins and newtimers live in houses. That is, unless they've decided to try the new hybrid . . . the log house. Logline Corporation president Earl Richards, pictured by his mill at Spencer, New York, tells us he makes a top-notch house from logs. According to Earl and his associate, Carl Hill, a log house is solid, naturally insulated, quiet, and in tune with the new rustic scene. What's more, it's a market for your timber.

FORESTRY

Elm Care – "Despite what you may have heard, 95 out of every 100 elms can now be protected against Dutch elm disease," says the Elm Research Institute. Recommended is a control program of systematic spraying, plus feeding and pruning as needed. Even an infected tree has a good chance to survive if treated at the first sign of disease.

ERI has developed a new pressure injector which pumps a fungicide (benomyl) solution into elms to not only prevent infection in healthy trees but inhibit spread of the disease in newly-infected trees.

A free pamphlet outlining a plan of action to save elms, either as an individual or on a municipal basis will be mailed on request. Write to: John P. Hansel, Executive Director, Elm Research Institute, 60 West Prospect Street, Waldwick, New Jersey 07463. Ask for Publication No. 372.

Literature relating to the pressure injector, as well as a free-loan film on the subject of Dutch elm disease control, can also be obtained from the same source.

Gypsy – New Jersey forested acres attacked by gypsy moths increased from 226,140 acres in 1972 to 254,865 in 1973 . . . a net increase of 13 percent. However, it's the smallest net increase in defoliation levels since the pest started damaging the state's woodlands in 1966, indicating that the gypsy moth population may be leveling off as a result of the use of biological and chemical control agents.

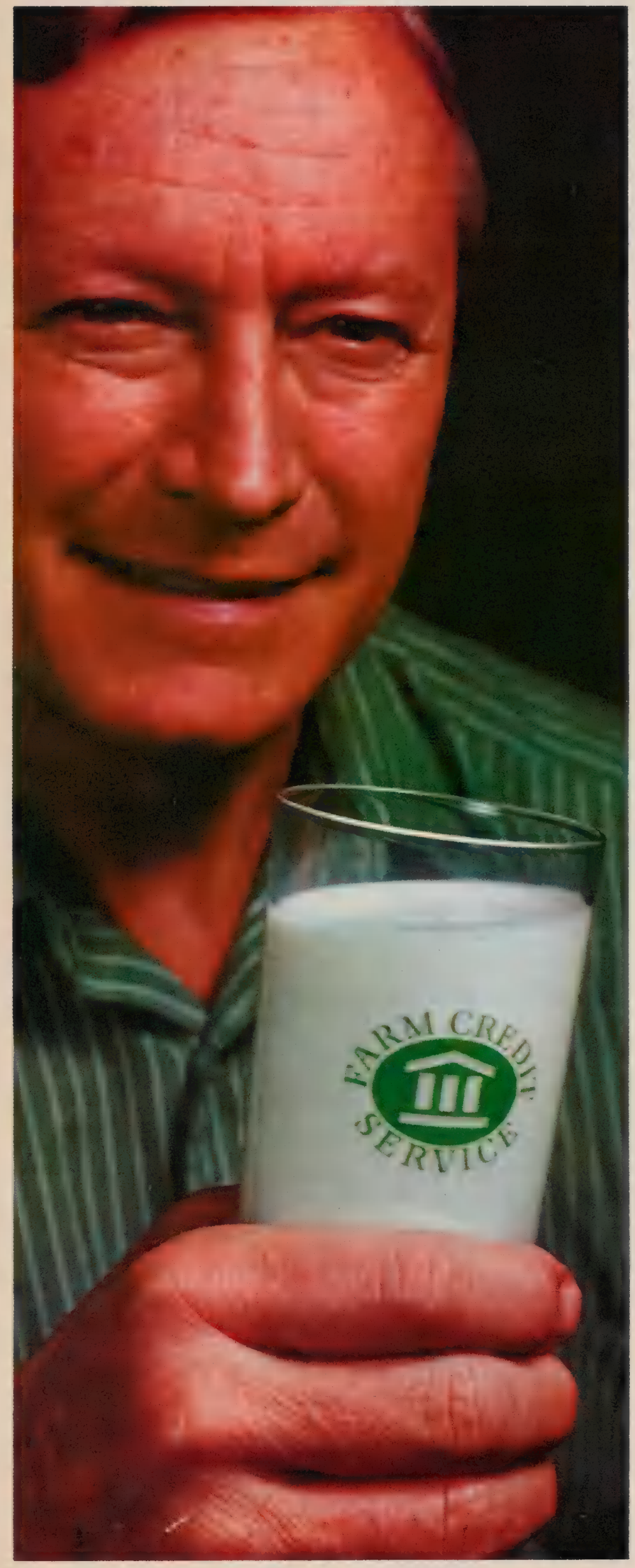
There's no hope of eradicating the gypsy moth from the Garden State, but population levels may eventually reach the point where the invader can at least be tolerated.

New Critter – Forestry specialist Lewis Bissell of the University of Maine reports a serious insect infestation in a balsam fir plantation in his state, causing damage to more than 50 percent of the trees. Called dioryctria abietella, it is also referred to as spruce cone worms. Normally, it is not a serious problem.

X-Rayted – Specialists of the U.S. Forest Service are pioneering the use of X-rays for forestry purposes . . . basic research in insect and disease control, detection of sound trees appropriate for special industry uses, and even "preventive medicine" for valuable shade trees. A portable X-ray machine is taken to the forest, along with generating equipment to provide electric power.



What's this . . . a new gizmo for cutting timber? Nope, it's a portable X-ray for trees, yet!



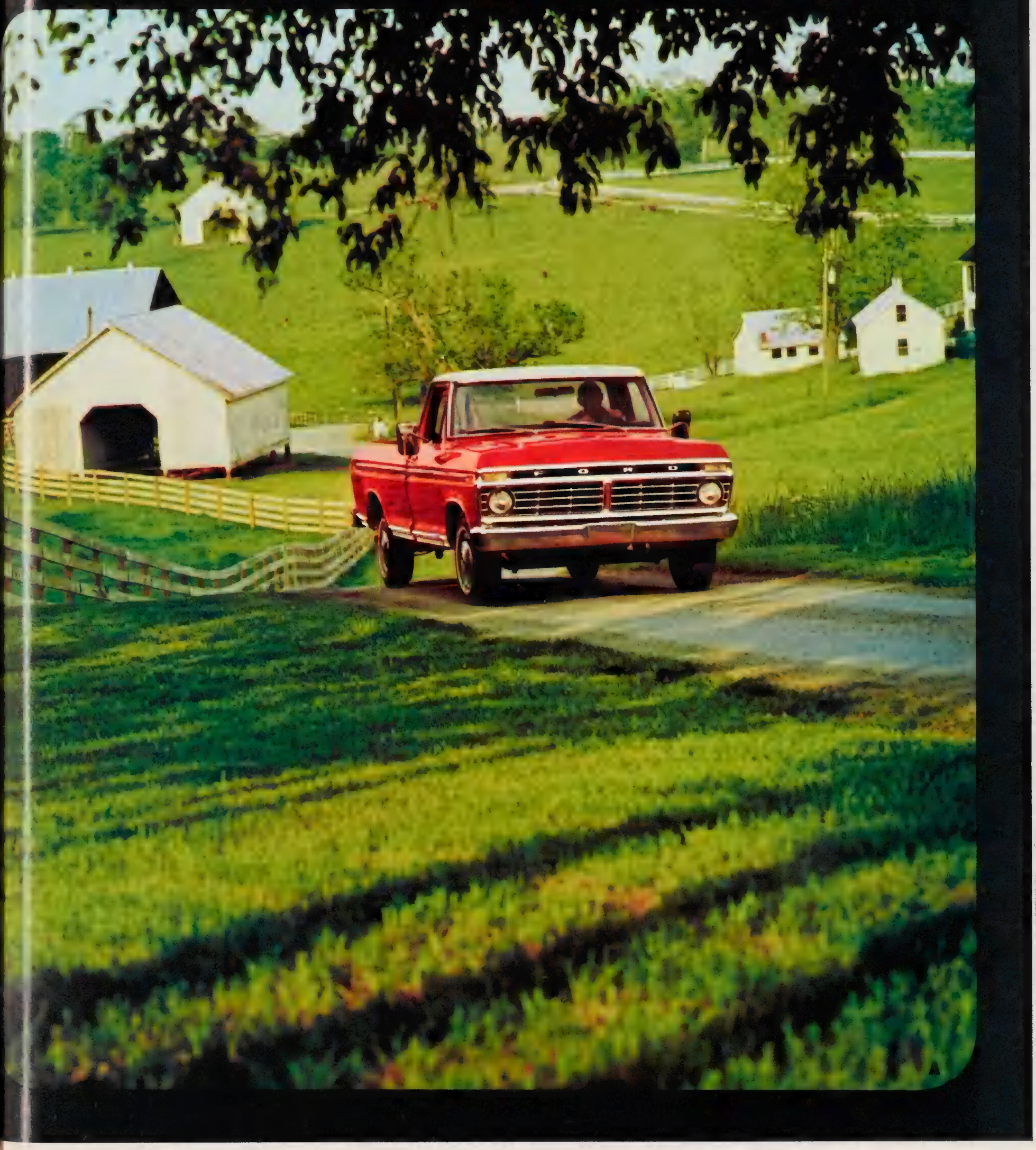
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Nov. 12-15 - Annual NYS Pesticide Conference, Alice Statler Auditorium, Cornell University, Ithaca, N.Y.

Nov. 12-20 - 107th Annual Session National Grange, Radisson Cornhusker Hotel, Lincoln, Neb.

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Nov. 17 - Livestock Field Days, Cornell University, Ithaca, N.Y.

Nov. 19-25 - International Livestock Exposition, Chicago, Ill.

Nov. 22 - Thanksgiving Day

Nov. 25-29 - National 4-H Club Congress, Chicago, Ill.

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'74 PICKUPS

WORK LIKE TRUCKS/RIDE LIKE CARS

For '74 Ford continues its better ideas tradition in pickups by retaining proven better ideas—better ideas like exclusive Twin-I-Beam front suspension and the long 140-inch wheelbase pickup—while making new, pace-setting advances.

Advances in power and performance with the big 460-cu. in. V-8 now optional in F-100's as well as F-250 and F-350. This 460 V-8 has a breakerless ignition system that delivers optimum voltage for fast, sure starts. Electrical reliability is outstanding and there are no points or condensor to ever need adjustment or replacement.



F-250 Custom with 133-in. wb. and 4-wheel drive

Ford continues better ideas in quiet cab comfort and spaciousness. A simple seat-of-the-pants test will demonstrate the total comfort of a seven-inch-thick foam seat cushion. A full-foam seat that's standard in every pickup . . . Custom, Ranger and Ranger XLT. The Ranger and Ranger XLT also have progressively greater insulation and more luxurious appointments.

Whichever model you choose, a gleaming bright grille and front bumper are standard, and so is Twin-I-Beam independent front suspension, the exclusive feature that contributes so much to Ford's works-like-a-truck, rides-like-a-car design. Twin-I-Beam front suspension is complemented with long-leaf rear springs, and long wheelbases to further improve ride. Pickup wheelbases range from 117 inches (with 6¾-ft. box) and 133 inches (with 8-ft. box) all the way up to 140 inches with 8-ft. Styleside box on the F-350. The long 140-in. wheelbase Super Camper Special is available with big 12.00 x 16.5 "Super Single" rear tires for great stability, ride and convenience with large slide-in camper bodies.

Ford light-duty conventional trucks are offered in F-100, F-250 and F-350 Series. GVW ranges for these series are F-100—4600 lb. to 5500 lb., F-250—6200 lb. to 8100 lb., and F-350—6600 lb. to 10,000 lb. Ford F-100 and 250 Series are available in Styleside or Flareside pickups and chassis-cabs. F-350's are offered in Super Camper Special pickups, Styleside pickups and single- or dual-rear wheel stakes and chassis-cabs. A 240-cu. in. Six is standard in F-100; 300-cu. in. Six in F-250 and F-350 (360-cu. in. V-8 in F-350 Super Camper and Styleside pickup).

The 300-cu. in. Six (includes Calif. emissions pkg. and breakerless ignition) or 302-cu. in. V-8 is optional in F-100 4 x 2. Also available are the 360-cu. in. V-8 (all series) and 390-cu. in. V-8 (4 x 2's only). High-performance 460 V-8 is optional in all 4 x 2's.

Four-wheel drive option is available on the F-100 and F-250. Ford's 4 x 4 option is a complete package with rugged front driving axle plus the special components and excellent ground clearance needed for rough off-road terrain.

Options include SelectShift Cruise-O-Matic and power steering.

F-100 Ranger XLT shown with optional whitewall tires, wheel covers and rear bumper. F-250 Custom shown with optional 4-wheel drive, sliding rear window, cab clearance lights, bodyside molding and bright western mirrors. F-350 Ranger XLT shown with optional sliding rear window, rear bumper and radio. F-250 Custom crew cab shown with optional low-mount swing-lock mirrors and radio.



F-100 Ranger XLT with 133-in. wb.



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anger XLT with 140-in. wb.

F-250 Custom with crew cab

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GREAT TRADITION OF BETTER IDEAS

INSIDE

Inviting Ford cab interiors provide exceptional spaciousness, comfort and quiet. On most models, the gas tank is mounted outside the cab in a protected location between the frame rails. The result? The cab is quiet and you gain important room and versatility. There is a big 5½-ft. wide storage area behind the folding seat back for tool boxes, fishing gear or suitcase. A good place to store things out of sight within the lockable cab. The big Ford cab also provides room for five inches of fore-or-aft seat travel to accommodate tall, short—all drivers. The wide seat holds three adults with plenty of hip and shoulder room. And seven inches of soft, resilient foam in the seat cushion plus a full-foam seat back provide solid seating comfort.

The deep-foam seat is covered with attractive, long-wearing upholstery. Doors are finished with handsome molded panels with integral armrests. And Ford interiors are carefully color-coordinated with exterior paint colors. This roomy Ford cab is extra quiet, too, because of special insulation designed to reduce noise.

Custom trim level is standard, and features deluxe fresh air heater/defroster • energy-absorbing sun visors and instrument panel padding • instrument cluster with green back-lighting • keyless locking doors • color-keyed molded door panels with integral armrests and paddle-type door handles • seat belts • windshield washers • two-speed windshield wipers • dome light with door courtesy light switches • ash tray • large glove compartment with push-button latch • sponge-grain headlining • black rubber floor mat • door scuff plates • black, red, blue or green vinyl seat trim.



Pickups have 10-inch day/night rear-view mirror, LH and RH bright-metal exterior mirrors • taillights with integral stop, turn, backup lights and reflector • hub caps (except 4 x 4's) • bright tailgate handle depression (Stylesides).

Ranger interiors include (in addition to or in place of Custom features) color-keyed pleated cloth seat upholstery with metallic vinyl bolsters • instrument panel molding with black accent • color-keyed door panels with bright moldings • additional insulation • perforated headlining (insulated) with bright molding • color-keyed vinyl-coated floor mat with heel pads • cigarette lighter. Exteriors feature bright windshield, rear window and roof drip moldings • bright rocker panel and wheel lip moldings • bright hub caps (except 4 x 4 option and dual-rear-wheel units) • Styleside pickups include bright tailgate moldings (top and bottom), taillight bezels • bright recessed tailgate handle.

Ranger XLT interiors offer (in addition to or in place of Ranger items) deluxe color-keyed, long-wearing cloth with vinyl trim seat upholstery • color-keyed pleated vinyl upper door panels with simulated woodgrain accented moldings and map pocket lower panels • color-keyed wall-to-wall nylon carpeting • black steering wheel with simulated woodgrain insert • bright instrument panel molding with simulated woodgrain insert • bright seat-pivot covers • additional insulation and double-wrapped muffler • convenience group (cargo, engine, glove compartment and ash tray lights, glove compartment lock and inside 12-in. day/night mirror) • color-keyed vinyl headlining (with special insulation) and sun visors. Styleside pickup includes bright bodyside moldings with vinyl insert • upper tailgate applique panel and molding • aluminum tailgate applique panel.

Ranger XLT interior shown with optional air conditioner. SelectShift Cruise-O-Matic transmission and radio. Custom interior shown with optional SelectShift Cruise-O-Matic, radio and convenience group.

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Nov. 12-13 - Annual Meeting Massachusetts Farm Bureau, Hearthstone Motor Inn, Seekonk, Mass.

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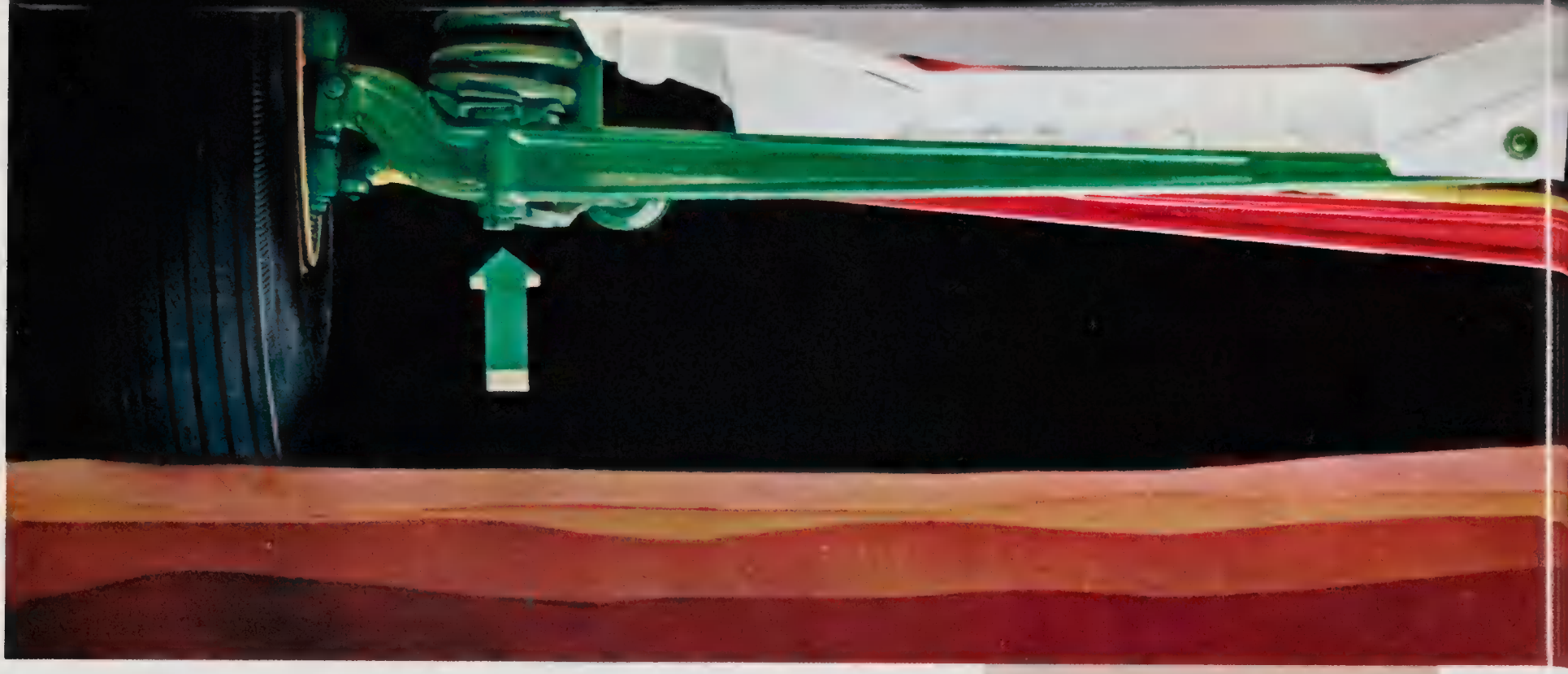
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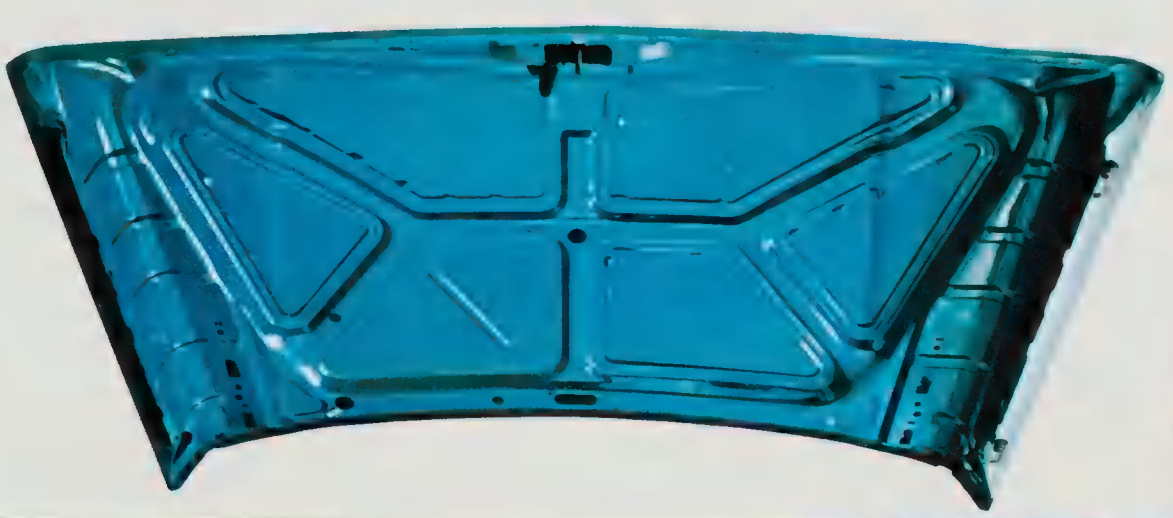
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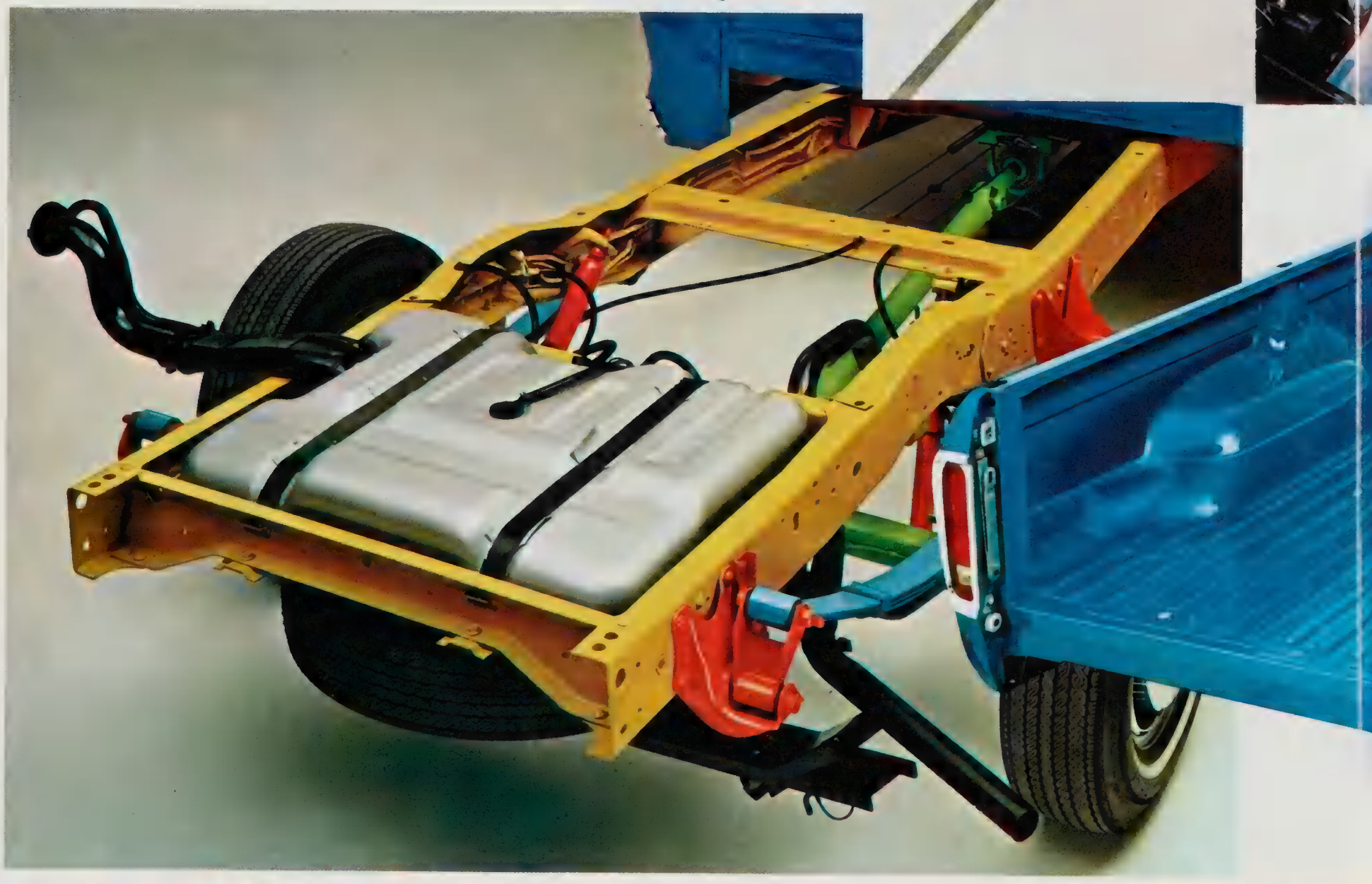
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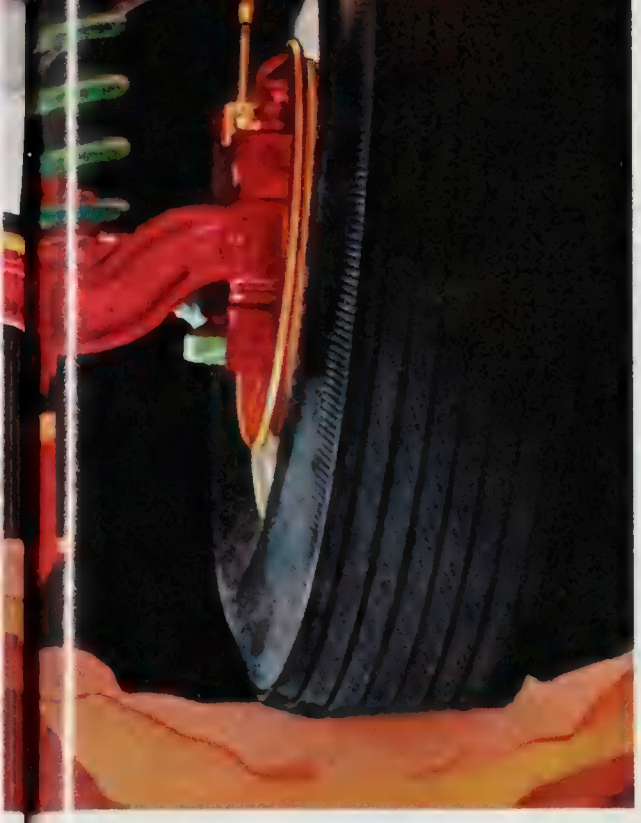
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GREAT TRADITION OF BETTER IDEAS

RUGGEDNESS & RIDE

Famous Twin-I-Beam independent front suspension remains an exclusive Ford feature for both ruggedness and ride. Each front wheel has its own forged I-beam axle with big coil spring to step over bumps independently to cushion the ride. Twin-I-Beam suspension also contributes to good cornering. Maintenance requirements are less because this simple, sturdy suspension has caster and camber angles built in structurally and maintained by forged-steel I-beams. You get a smooth ride and superb handling —plus the strength and durability of two forged I-beam axles. It's a major reason why a Ford pickup can work like a truck, ride like a car. Complementing the suspension system, Ford's long wheelbase provides for an even smoother pickup ride. The wheelbase for Ford's most popular Styleside body is 133 inches long. A long wheelbase acts to space out the bumps and give the suspension system a better opportunity to absorb and dampen shocks . . . smooth out the ride.

The F-350 Super Camper Special and F-350 Styleside pickups both feature an 8-ft. box on 140-in. wheelbase. Their long wheelbase with regular 8-ft. box length puts a greater portion of the cargo box ahead of the rear axle, shortens the rear overhang and provides excellent load weight distribution with heavy camper bodies.

The F-100 gives you almost a car-type ride in a tough pickup truck. In addition to the other Ford features already covered, the F-100 pickup has long and 2½-inch-wide rear leaf springs for easy going—especially when riding empty or with a light load. And soft-riding tires up to L78-15 in size are available—including HR78-15 steel-belted radials. Steel-belted radials are extra strong, hold the road, and provide excellent cornering and braking characteristics. If your wife never felt comfortable driving a pickup before, just get her to try a 1974 Ford!

The massive Ford hood has double-wall sections and bridgelike construction for both strength and stiffness. The inner and outer panels are welded into a single rigid hood unit that minimizes vibration or flutter. Sturdy galvanized front fender aprons, pickup box inner panels and double-wall door construction are other examples of Ford's strong, durable construction.

Wide-track stability gives Ford pickups a steady stance and excellent road holding ability. Tread width measures over 64 inches, and with front and rear widths practically equal (as illustrated at left) wheel tracking is even and excellent. Front and rear stabilizer bars are included in the Camper Special package and are standard on the Super Camper Special for great resistance to roll.

Sturdy frames. F-100 and F-250 frames are extra wide from the cab on back providing a strong, stable foundation for the big Styleside pickup box. On most models, the fuel tank is mounted within the protection of the husky frame siderails under the pickup bed. **Long, wide progressive rear leaf springs** adjust to load conditions for a good ride—light or loaded. Leaf springs also provide control over lateral axle motion and absorption of driving and braking forces.

The Styleside body is built strong. Double-sidewall strength is only the beginning. Ford's design utilizes a single strong sheet of steel to form each outer wall. This construction eliminates the complex joining of the three separate pieces that it replaced, thereby reducing possible rust-prone joints. **Both sides of the inner sidewall and the outer panel are zinc coated.** In fact, over 200 sq. ft. of zinc-coated metal is used throughout Styleside pickups to guard against corrosion. **The cargo box is easy to clean, too.** The pickup bed's curved wall-to-floor transition eliminates sharp, dirt-catching corners. You can quickly sweep or hose out the cargo box. The big 50.8-in. width between wheelhousings provides easy clearance for carrying plywood or paneling flat.

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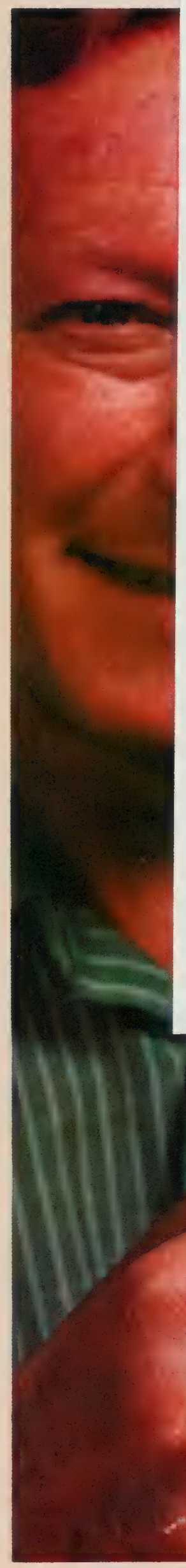
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GREAT TRADITION OF BETTER IDEAS

FARM AND FUN-FITT

Ford offers a better idea truck to fit most any farming need. All are designed to be rugged, reliable performers that can really earn their keep. And many are built to be great recreation vehicles when farm chores are done. **Ford's advanced F-350 Super Camper Special** is one of these great work/play vehicles. It's an 8-ft. pickup with long 140-in. wheelbase for good handling and weight distribution with hefty 10,000-lb. maximum GVW. Big 12.00 x 16.5 "Super Single" rear tires are offered for proper load capacity and road stability with the compact overall width, weight saving advantages and conveniences of single tires. Twin-I-Beam front suspension, progressive rear springs, and front ar d stabilizer bars are all standard. So, whether ha ul load of feed or a slide-in camper up to 12-ft. lon g works like a truck and rides extra smooth. Fo rd offers Camper Special packages for 133-in. wb pickups and 137- or 161-in. wb. F-350 chass s- Ford fiberglass pickup box covers are popular h m fishing-camping options for 8-ft. Stylesides.

Ranchero—the pickup car. Three sleek models: v packed Ranchero 500, sporty Ranchero GT and lu ous Ranchero Squire. Peppy 302 V-8 engine is st an in all Rancheros. Choice of options includes eng ne



Ranchero 500 with optional vinyl roof, whitewall tires, trim rings and hub caps

F-350 Ranger XLT Super Camper Special with Ford frame-anchored camper tie-down system



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RUCKS

to 460 cubic inches big, air conditioner with automatic temperature control, tilt steering , and Class II or III Trailer Towing packages. Big . cargo box has four convenient cargo tie-down o secure loads. Over 4 feet between wheelhousings ou handle 4′ x 8′ materials with the tailgate down. hero has up to 1,250 lb. people and payload capacity.

rd full-cab conventionals are designed to tackle nding farm jobs with the better ideas that have Ford medium/heavies famous. Full-cab roominess des plenty of comfort for three big men. Wide- front axles let wheels cut as sharp as 44° for out- ing maneuverability. Turning diameters are com- le to those of short-cabs. Ford F-Series medium/heavies are available in 500, 600, 700 and 750 gasoline models and 6,000, 7,000 Diesels. GVW's range from 14,000 to 27,500 lb., GCW's to 50,000 lb. Gasoline engines go up to 391 cu. in., Diesels to 573 cu. in. Convenient low-cost Ford 3-speed automatic transmission is available. Wide choice of wheelbases lets you get the right chassis for all types of bodies up to 21-ft. long. Four-wheel-drive F-600's and many custom-tailoring options are available.

Ford Bronco—tough, tight-turning 4-wheeler. An all-around farm vehicle that's recreation minded as soon as you are! Surefooted in mud, sand and snow . . . Bronco climbs steep grades with ease. Remarkably smooth riding with Ford's Mono-Beam coil spring front suspension. Options include Ranger dress-up package, power steering and automatic transmission. Bronco's a great worker, a great vehicle to get away in.



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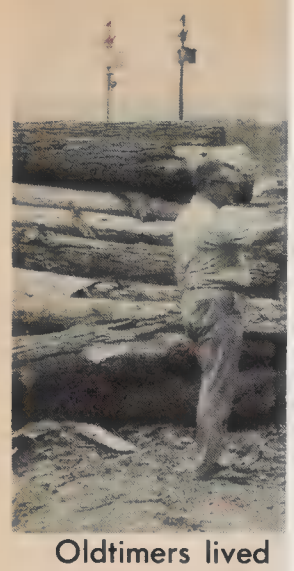
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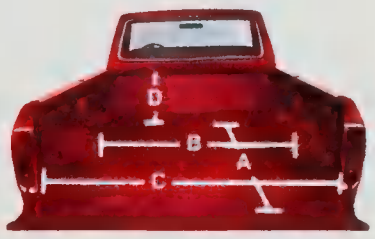
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GREAT TRADITION OF BETTER IDEAS

CAPACITY

Ford F-350 dual-rear-tire chassis-cabs combine big capacity with Twin-I-Beam front suspension riding smoothness. The F-350 offers a maximum GVW rating of 10,000 pounds. These big chassis-cab models are available for mounting van or other special purpose bodies. Sturdy frame rails are straight and parallel behind the cab, except for a slight kickup over the rear axle, for easy body installation and low loading heights. Long 137- and 161-in. wheelbases (60- and 84-in. CA's) accommodate 9- to 12-ft. bodies. Chassis-cowl models are also offered in the F-350 Series.

The versatile F-350 Series includes the long 140-in. wheelbase Super Camper Special 8-ft. pickup available with 12.00 x 16.5 "Super Single" rear tires for big slide-in campers. While F-350 chassis-cab Camper Specials handle large cab-over chassis-mounted campers up to 14 ft. long. Full 8-ft. Styleside pickups are also available, and GVW ratings go to 10,000 lb. with "Super Single" rear tires.



Styleside pickups, available in 6¾- and 8-ft. lengths, have strong double-sidewall construction. Each inner and outer panel is one solid piece. Fewer joints and over 200 sq. ft. of zinc-coated metal throughout all Styleside pickups protect against rust and corrosion. Strong double-wall tailgate.



F-350 8-ft. Styleside pickup and Super Camper Special (140-in.wb.) have the spare-tire location built into the outer right side of this Styleside box. The important rear-axle-to-tailgate dimension is only 39.2 inches for good balance with big campers or special equipment.



OPTIONS

1. Rear step bumper for 8-ft. Stylesides. **2. Super cooling package.** Increased capacity radiator (also includes HD transmission oil cooler when Cruise-O-Matic is ordered) is optional with 360, 390 and 460 V-8's. **3. Slide-out spare tire carrier** allows spare tire to be pulled out from its underframe location. Tire slides out and down to the ground at rear of pickup for easy access. **4. 22.5 gal. auxiliary fuel tank** (20.2 gal. F-100). **5. Sliding rear cab window** (tinted glass). **6. Bright tie-down hooks.** Eight convenient cargo tie-down hooks for Stylesides. **7. Air conditioner** (includes 55-amp. alternator and cooling package). **8. Concealed spare tire and wheel** in right side of F-350 Super Camper Special and Styleside pickup box. **9. Western-type mirrors** with long arms, low-mount swing-lock or low-mount with extended arms. **Other popular options include:** SelectShift Cruise-O-Matic ▪ Breathable knitted vinyl or HD black vinyl seat ▪ Black or white texture painted roof ▪ Full wheel covers or mag-style covers • AM/FM stereo or AM radio ▪ Auxiliary 12-volt 70 amp-hr battery with dual circuit charging system ▪ Pickup box cover for 8-ft. Stylesides • Convenience group (standard on XLT) with cargo, engine, glove compartment and ash tray lights; glove compartment door lock, door map pockets and 12-in. day/night inside mirror ▪ Northland Special package with engine block heater, 50% (—35°F) antifreeze, 70 amp-hr battery, 55-amp. alternator and limited-slip rear axle • Power front disc brakes (4 x 2's) • Power steering • High-output heater ▪ Dual electric horns • Trailer towing packages (up to 10,000 lb.) ▪ Ammeter and oil pressure gauge ▪ Frame-anchored camper tie-down system • HD 50-amp. camper wiring harness (includes 61-amp. alternator) ▪ Interval windshield wipers ▪ Dual paint stripes.





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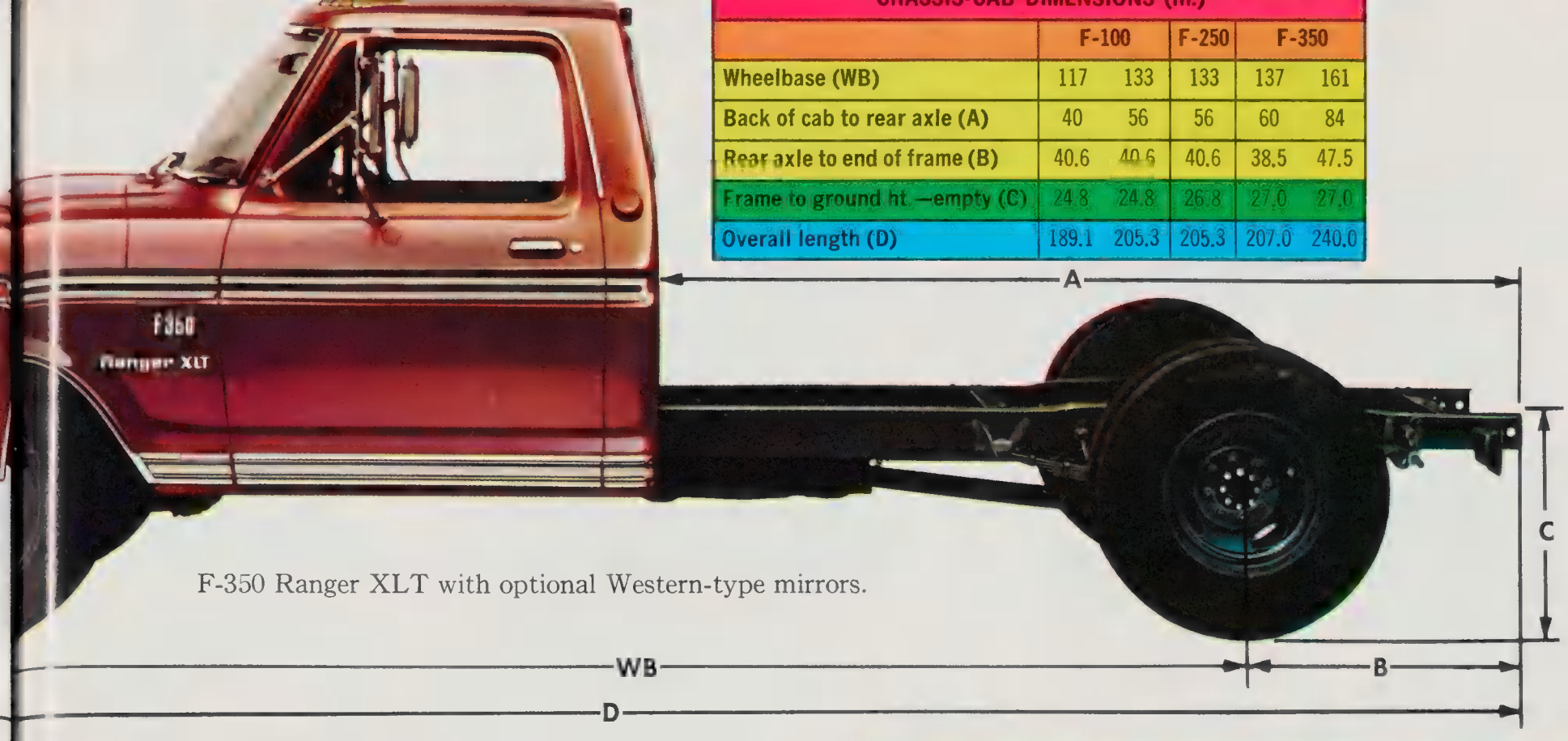
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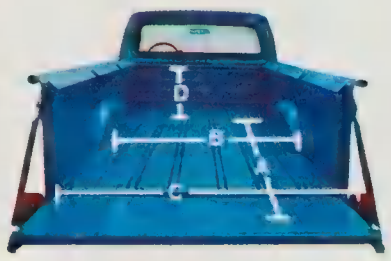
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F-350 Ranger XLT with optional Western-type mirrors.

CHASSIS-CAB DIMENSIONS (in.)					
	F-100		F-250	F-350	
Wheelbase (WB)	117	133	133	137	161
Back of cab to rear axle (A)	40	56	56	60	84
Rear axle to end of frame (B)	40.6	40.6	40.6	38.5	47.5
Frame to ground ht. —empty (C)	24.8	24.8	26.8	27.0	27.0
Overall length (D)	189.1	205.3	205.3	207.0	240.0

/St kes in 9- & ngth s are designed oad . Floor frames of steel cross sills to steel siderails. rds are interlocked el kid strips and re einforced with kes. Formed steel er ends of body b ards are hard- nd s akes are steel.



Flareside pickups (8-ft., 133-in. wb.) have running boards between cab and fenders for easy side loading and seasoned hardwood floorboards with interlocking steel skid strips. Rubber-covered forged-steel chains support tailgate when open, toggle-type latches maintain tight seal when tailgate is closed.

BODY AVAILABILITY AND CARGO AREA DIMENSIONS

SERIES	Wheelbase (in.)	Nominal Cargo Box Length (ft.)	Inside Length (in.) (A)	Width Between Wheelhousings (in.) (B)	Tailgate Opening (in.) (C)	Inside Depth at Sides (in.) (D)	Cargo Cap'y (cu. ft.)
STYLESIDE PICKUPS							
F-100	117	6¾	82.0	50.8	65.0	19.3	61.0*
	133	8	98.2	50.8	65.0	19.3	73.6*
F-250	133	8	98.2	50.8	65.0	19.3	73.6*
F-350	140	8	98.2	49.0	65.0	19.3	65.1*
SUPER CAMPER	140	8	98.2	49.0	65.0	19.3	65.1*
FLARESIDE PICKUPS							
F-100	133	8	96.0	48.4	54.0	22.0	65.4*
F-250	133	8	96.0	48.4	54.0	22.0	65.4*
STAKE OR PLATFORM							
F-350	137	9	106.0† 109.4‡	—	82.1† 87.3‡	31.2	—
	161	12	142.0† 145.4‡	—	82.1† 87.3‡	42.0	—

*Allowance made for wheelhousings. †Stake. ‡Platform.



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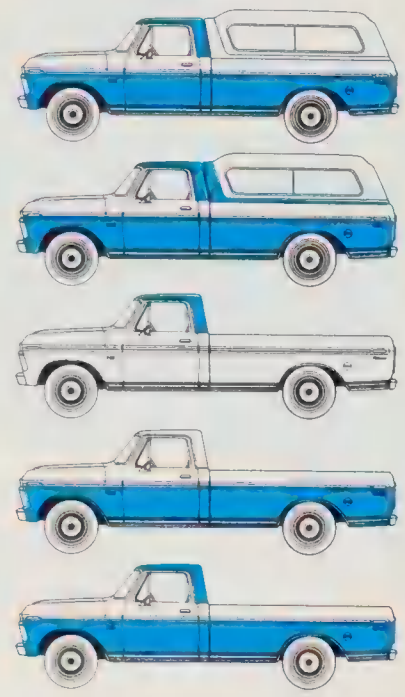
Oldtimers lived
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SPECIFICATIONS-COLORS

Colors and Combinations

Standard Colors: Wimbledon White, Samoa Lime, Pastel Lime, Limestone Green Metallic, Village Green, Candyapple Red, Sandpiper Yellow, Burnt Orange, Raven Black, Wind Blue, Light Grabber Blue, Midnight Blue Metallic, Sequoia Brown Metallic, Chrome Yellow. New Ivy Glow and Gold Glow colors are optional. Different two-tones are obtained by using all the standard colors *except* Chrome Yellow and Raven Black. Wimbledon White may be used as the accent color for any other color. Consult your Ford Dealer for the other accent color combinations as well as the different ways the Styleside models may be painted. Two-tone applications are shown at right.

Pickup box cover in Textured White is available on 8-ft. Styleside pickups.
Deluxe pickup box cover has two-tone treatment with Textured White incorporating Styleside body color as an accent with Candyapple Red, Light Grabber Blue, Limestone Green Metallic, and Sequoia Brown Metallic. Textured White with Wimbledon White accent color is used with all other body colors and with sliding window option.
Regular: The accent color is applied to the roof and upper back panel with a belt line molding from door to door around back of cab.
Deluxe (Stylesides only): The accent color is applied to the area below the bodyside and lower tailgate moldings which are included in this option.
Combination (Stylesides only): Regular and Deluxe two-tone options are combined with the accent color applied as specified above for these two options.



EQUIPMENT	TWO-WHEEL DRIVE F-100	F-250	F-350	F-350 Styleside	FOUR-WHEEL DRIVE OPTION F-100 (4 x 4)	F-250 (4 x 4)
Maximum GVW	5500 lb.	8100 lb.	10,000 lb.*	10,000 lb.	5700 lb.	7700 lb.
Axle, Front: Type	Twin-I-Beam	Twin-I-Beam	Twin-I-Beam	Twin-I-Beam	Full-floating, Drive	Full-floating, Drive
Rating	2750 lb.	3000 lb.	3850 lb.	3850 lb.	3300 lb.	3300 lb.
Optional Rating	—	—	—	—	—	3550 lb.
Axle, Rear: Capacity	3300 lb.	5300 lb.	7400 lb.	7400 lb.	3300 lb.	5300 lb.
Ratios (to 1)**	3.70, 3.00, 3.25, 3.50	4.10, 3.54, 3.73	4.56, 3.73, 4.10	4.10, 3.73, 4.56	3.70, 3.50, 4.11●	4.10
Limited-Slip Diff. Rating	3300 or 3600 lb.	5300 lb.	7400 lb.	7400 lb.	3600 lb.	5300 lb.
Ratios (to 1)**	3300—3.70 3600—3.00, 3.25, 350	3.54, 3.73, 4.10	3.73, 4.10	3.73, 4.10	3.50, 4.11●	4.10
Brakes, Service: Front	Front Disc	Front Disc	HD Disc	HD Disc	11″ x 2″	12⅛″ x 2″
Rear	11 32/32″ x 2¼″	12⅛″ x 2″	12″ x 3″	12″ x 3″	11 32/32″ x 2¼″	12″ x 2½″
Power (Vacuum Booster) Optional Brake Size	10.0″ dia. Opt. —	10.0″ dia. Std. HD▲	11.2″ dia. Std. —	11.2″ dia. Std. —	7.9″ dia. Opt. —	7.9″ dia. Opt —
Clutch: Dia. (in.)—Area (sq. in.)	11—123.7§	11—123.7§	11—123.7§	11—123.7	11—123.7	11—123.7
Electrical: 12-Volt Battery	54 plates—45 amp-hr	54 plates—45 amp-hr	54 plates—45 amp-hr	54 plates—45 amp-hr	54 plates—45 amp-hr	54 plates—45 amp-hr
Optional Battery ‡	78 plates—70 amp-hr	78 plates—70 amp-hr	78 plates—70 amp-hr	78 plates—70 amp-hr	78 plates—70 amp-hr	78 plates—70 amp-hr
Std. Alternator	38 amp., 570 watt	38 amp., 570 watt	42 amp., 630 watt	42 amp., 630 watt	38 amp., 570 watt	38 amp., 570 watt
Opt. Alternator	42, 55 or 61 amp.	42, 55 or 61 amp.	55 or 61 amp.	55 or 61 amp.	42, 55 or 61 amp.	42, 55 or 61 amp.
Engine: Displacement	240 Six●	300 Six	300 Six	360 V-8	240 Six●	300 Six
Optional	300 Six, 302 V-8, 360 V-8, 390 V-8, 460 V-8●	360 V-8, 390 V-8, 460 V-8	360 V-8, 390 V-8, 460 V-8	390 V-8 460 V-8	360 V-8	360 V-8
Frame: Section Modulus (Short wb.)	3.08	4.14	5.58	6.63	3.91	5.58
(Long wb.)	3.26	—	7.84	—	4.14	—
Shock Absorbers: (Double-acting)	Front & Rear	Front & Rear	Front	Front & Rear	Front & Rear	Front & Rear
Optional	HD Front & Rear	HD Front & Rear	Rear, HD Front	—	HD Front & Rear	HD Front & Rear
Springs, Front: Computer Selected Min.	1250	1365	1725	1725	1365	1550
Rating @ grd. (lb.) Max. Opt.	1525	1650	1925	1925	1600	1775
Springs, Rear: Rating @ grd. (lb.)	1275	1915	2025	2725	1475	1975
Optional Main	1475, 1650	2225, 2740	2725, 3525, 3625	2950	1875	2700
Optional Auxiliary (@ pad)	410	700	550, 900	550	—	550
Steering: Type	Recirculating Ball	Recirculating Ball	Recirculating Ball	Recirculating Ball	Worm & Roller	Worm & Roller
Optional	Integral Power	Integral Power	Integral Power	Integral Power	Linkage Power	Linkage Power
Transfer Case: Type	—	—	—	—	1-Speed■	2-Speed
Transmission: Type	3-Speed Synchronized	3-Speed Synchronized	4-Speed†	4-Speed†	4-Speed†	4-Speed†
Optional	4-Speed & Cruise-O-Matic	4-Speed & Cruise-O-Matic	Cruise-O-Matic	Cruise-O-Matic	Cruise-O-Matic	Cruise-O-Matic
Wheels: Type—Rim Size (Standard)	(5) 5-hole—5.5K	(4) 8-hole—6.0	(4) 8-hole—6.0	(4) 8-hole—6.75	(5) 5-hole—5.5K	(4) 8-hole—6.0
Tires: Tubeless	G78-15 B PT	8.00 x 16.5 D TT	8.00 x 16.5 D TT	8.75 x 16.5 E TT	G78-15 B PT	8.00 x 16.5 D TT
Optional	Both tubeless and tube-type in sizes to match GVW requirements					

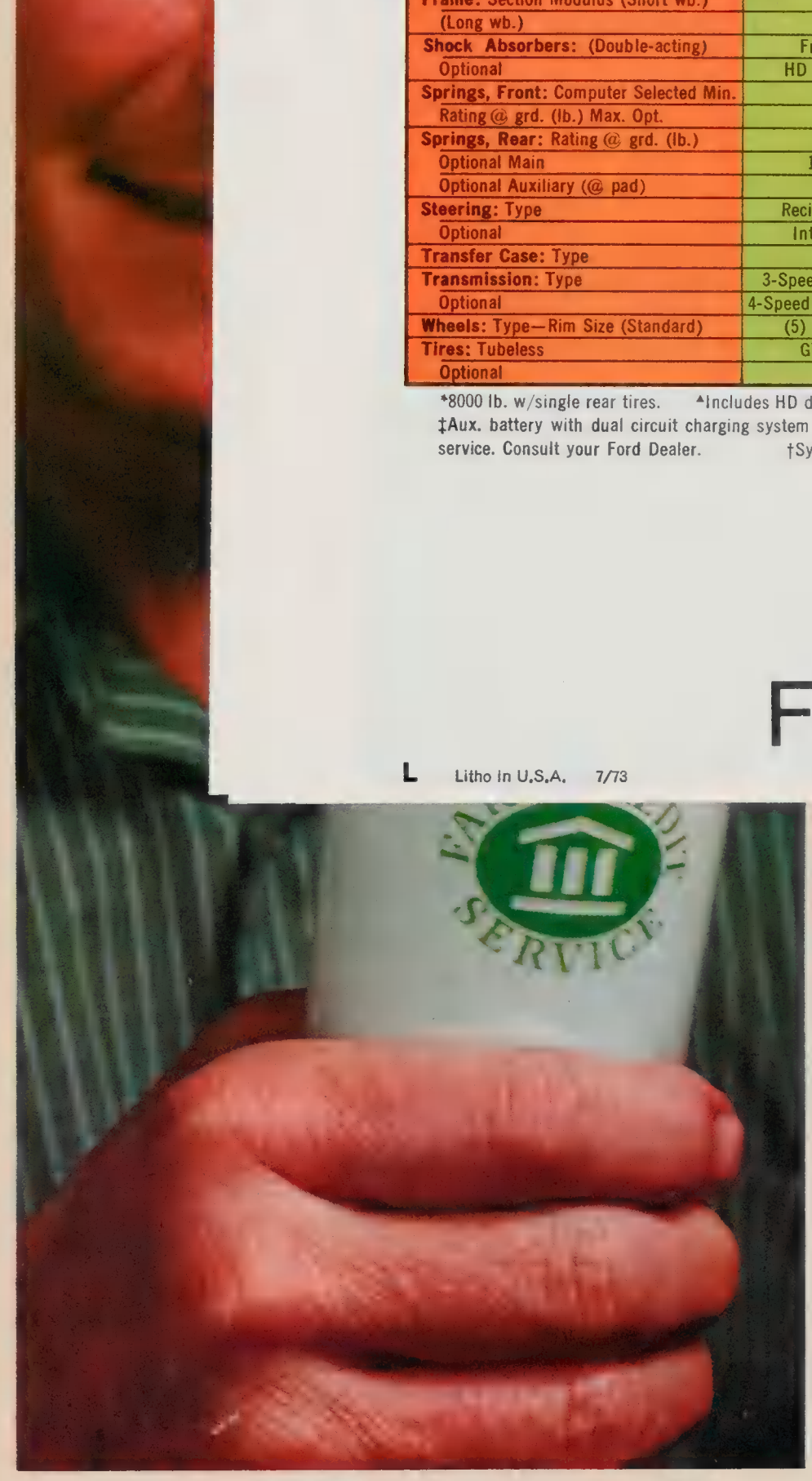
*8000 lb. w/single rear tires. ▲Includes HD disc front, 12″ ■ 2½″ rear brakes and 11.2″ booster. §11½″ dia. clutch. incl. w/390 V-8. ■2-Speed w/Cruise-O-Matic.
‡Aux. battery with dual circuit charging system available. **See your Ford Dealer for availability. PT = passenger type. TT = truck type. Use adequate tires for loads and type of service. Consult your Ford Dealer. †Synchronized except for 1st gear and reverse. ●N.A. in Calif.

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FORD PICKUPS

FORD DIVISION

L Litho in U.S.A. 7/73



economically, too. For financial help, see a man who understands your problems and can do something about them . . . your local Farm Credit man. We're sure you'll find Farm Credit Service **your** cup of tea, too!

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FARM CREDIT SERVICE

Offering Land Bank and Production Credit Loans



What's this . . . a new gizmo for cutting timber? Nope, it's a portable X-ray for trees, yet!

Dates to Remember

Oct. 8-9 - Cow-Calf Clinic, Goshen High School (9 a.m.-4 p.m.), Goshen, N.Y., by Dr. I.S. McFarlane of South Africa. Sponsored by Orange County Extension Service.

Oct. 9 - Fall Meeting, Maine Christmas Tree Growers, Ray Wilson's Christmas Tree Farm, Smithfield, Maine.

Oct. 10-11 - Dairylea Cooperative Annual Meeting, Buffalo, N.Y.

Oct. 12-14 - Fall Foliage Festival, Cohocton, N.Y.

Oct. 12-20 - Pennsylvania National Horse Show, Farm Show Building, Harrisburg, Pa.

Oct. 13 - New Jersey Beekeepers Association State Meeting, Grange Hall, Columbus, N.J.

Oct. 13-14 - LaFayette Apple Festival, Grant Grimshaw Middle School, LaFayette, N.Y.

Oct. 16-17 - Annual National Meeting on Poultry Condemnations, Delmarva Convention Hall, Delmar, Md.

Oct. 16-19 - National Convention FFA, Municipal Auditorium, Kansas City, Mo.

Oct. 18-19 - Agway Annual Meeting of Stockholders, War Memorial, Syracuse, N.Y.

Oct. 19-27 - American Royal Livestock and Horse Show, Kansas City, Mo.

New York Beef Cattlemen's Association Feeder Sales: Oct. 20, Westernville; Oct. 25, Dryden; Oct. 27, Pike; Oct. 30, Caledonia; Nov. 2, Caledonia; Nov. 3, Pike.

Oct. 21-25 - Annual Session New York State Grange, Cortland, N.Y.

Oct. 23 - Annual Meeting New England Livestock Conservation, University of Rhode Island, Kingston, R.I.

Oct. 27 - NYS Guernsey Breeders' Sale, Zogg Sales Pavilion, Cortland, N.Y.

Oct. 30-Nov. 1 - NEPPCO Annual Convention and Exposition, Hersheypark Arena and Motor Lodge, Hershey, Pa.

Oct. 31-Nov. 2 - Cornell University Nutrition Conference for Feed Manufacturers, Statler-Hilton Hotel, Buffalo, N.Y.

Nov. 3 - Rockingham Craftsmen Fair, Kingston Town Hall and Pent Memorial Room of Congregational Church, Kingston, N.H.

Nov. 8-13 - Keystone International Livestock Exposition, Harrisburg, Pa.

Nov. 12-13 - Annual Meeting Massachusetts Farm Bureau, Hearthstone Motor Inn, Seekonk, Mass.

Nov. 12-15 - Annual NYS Pesticide Conference, Alice Statler Auditorium, Cornell University, Ithaca, N.Y.

Nov. 12-20 - 107th Annual Session National Grange, Radisson Cornhusker Hotel, Lincoln, Neb.

Nov. 13-14 - Annual Meeting Inter-State Milk Producers' Cooperative, Marriott Motor Hotel, Philadelphia, Pa.

Nov. 17 - Livestock Field Days, Cornell University, Ithaca, N.Y.

Nov. 19-25 - International Livestock Exposition, Chicago, Ill.

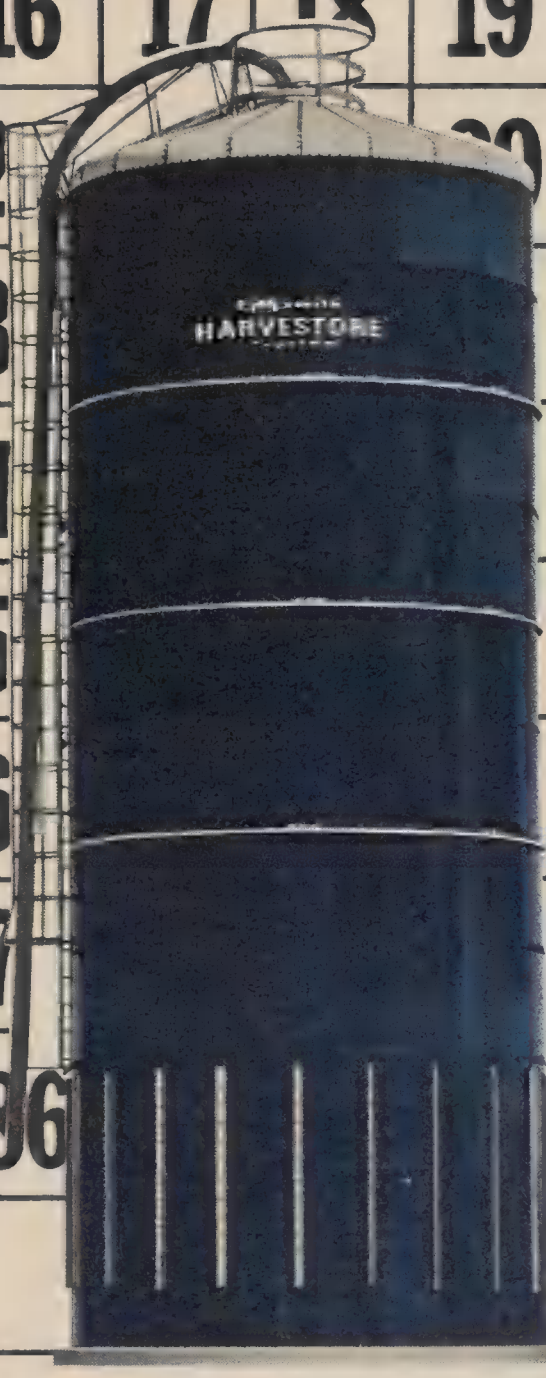
Nov. 22 - Thanksgiving Day

Nov. 25-29 - National 4-H Club Congress, Chicago, Ill.

Harvestore invents the 90-day month

Corncember

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	2				30
31	32	33	34	35	3				40
41	42	43	44	45	4				50
51	52	53	54	55	5				60
61	62	63	64	65	6				70
71	72	73	74	75	7				80
81	82	83	84	85	86				90



The Harvestore System can't really change the calendar. But if you farm the Harvestore way, you can stretch your corn harvest season into October, November and even December.

That's because Harvestore farmers can make Cornlage™. They can harvest whole plant corn at 50-55% total plant moisture when there are more pounds of mature grain. And they can do it without sacrificing yield or digestibility.

Best part is, Harvestore processed Cornlage™ undergoes controlled fermentation. Spoilage is all but eliminated. Feed won't freeze up in the winter, either, because it contains less water.

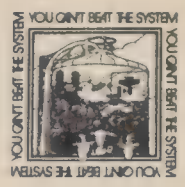
Want to stretch your harvest season and make better feed? Then put Corncember on your profit calendar. Harvestore processed Cornlage ™.It's worth the wait.

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The information contained herein is general in nature and is drawn from sources deemed to be reliable. Any application to a particular farming operation requires the advice of qualified experts and is subject to limitations of good management, weather and other conditions present at the individual location.

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Receive free this 26-page brochure, "You can't beat the System." Contains more valuable information about Harvestore processed Cornlage™. Send in the coupon today.



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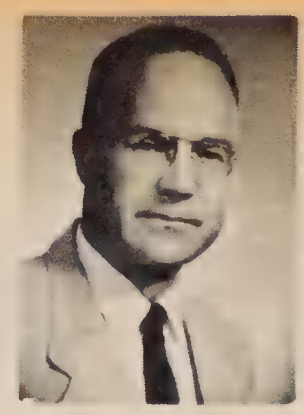
County _____ Zip _____

I farm _____ acres

Number of animals: ____dairy ____beef ____hogs

Check if attending school _____ H73-99

EDITORIALS



by GORDON CONKLIN

THE SELLING OF A FARMER

Some time ago, Congressman Jerry Litton of Missouri called a meeting of leading farmers and agribusinessmen at Washington, D.C. More than 400 people attended, representing over 200 farm groups.

What was all the excitement about? The purpose, as explained by Litton, was "to discuss the growing crisis resulting from an expanding communications gap between consumer and producer which is hurting both groups as well as the economy of our nation." As a result of the meeting, an ad hoc committee was appointed to work out ways of accomplishing a plan whereby all of American agriculture can unite behind one structure charged with the responsibility of closing that communications gap. Northeasterners appointed include:

— Phil Sheridan, executive secretary of the North American Blueberry Council

— C. W. Cook, chairman of General Foods Corporation

— Maynard Dolloff and Nathan Chandler, commissioners of agriculture in Maine and Massachusetts, respectively

— Stan Gates, treasurer of the American Cheviot Sheep Society

— Robert Rumler, executive secretary of the National Holstein-Friesian Association.

The comments made at the meeting waxed eloquent in support of the idea of pulling all of U.S. agriculture together in a single mighty effort to educate the non-farm consumer about the facts of life concerning farming and agribusiness. This is an objective unpopular to question, but some questions nevertheless need asking:

— Are we really ever going to successfully "educate" the non-farm consumer to accept gracefully adequate prices for farm products ("adequate" by farmers' standards)?

Consumers and farmers are inherently opposed to each other in the economic arena, as are organized labor and corporate management. Sociologists say these groups are always at the "interface of conflict" because higher farm prices mean less consumer income available for other things . . . and higher wages are likely to mean less profits (or at least increased problems for management). Have such giants as General Motors and International Harvester ever convinced their workers not to strike by existing public-relations programs "explaining" corporate goals and methods?

— Some observers of the passing parade claim that the majority of Americans are "economic illiterates." Can a crash PR program overcome this fundamental problem . . . or is the best remedy a good required course in economics at the high school level?

— Aren't we being naive to expect a resident of the central city or suburbia to be concerned about the best interests of farmers? After all, his daughter has to have braces for her teeth (at $2,000 a throw) . . . his son is smoking pot . . . and his mother-in-law bugs him daily. With his problems, how can he care less about the problems of **agriculture**?

— Wouldn't it make more sense to go to **rural non-farmers** with the PR message about agriculture . . . rather than attempt to "sell" the big-city people on the idea that they should understand farming and agribusiness? After all, the folks who **live** interspersed around the commercial farms have some identity already with agriculture, and live in the country because they like the rural scene, and the values of its citizens.

— Since when does the Teamsters Union worry about goodwill among consumers? Its members strike for higher wages . . . and to hell with what the consumer thinks! Are the Teamsters more realistic about the people in the marketplace than are farmers?

— Would a big campaign involving four or five million dollars annually really accomplish the purpose of better understanding for agriculture? In our mass-media society, many people are turned off by sophisticated campaigns intended to sell everything from a president to a tube of toothpaste. Credibility seems to decline in ratio to the "splash"-level of the public-relations effort.

What do you think?

L'EAU DE PHEW

Well, the scientists have really loused up the femme fatale of the gypsy moth cocktail set!

It seems she has a chemical lure . . . entomologists call it a sex attractant . . . to guide the male to her boudoir. But the conniving experts on bugs have found a repellent chemical which is also normally produced by the moths in the process of developing the sex attractant. That is, the repellent is partially -manufactured lure.

So now the gleeful scientists have anointed the hapless female gypsy moth with a tiny amount of that repellent . . . and the heretofore ogling males buzzed off for parts unknown as though they'd just been ordered to cut their long hair! It's possible that spreading the inhibitor over a large area will result in leaving every lonesome female moth weeping over her hope chest.

Maybe the gypsy moth can take a lesson from the not-so-young gal who went to the perfume counter and asked for a scent that would be a guaranteed sure thing . . . and bring the men panting in her direction.

The salesgirl, a statuesque blonde, replied, "Yes, we have it . . . but we keep it out in the back room. Walk this way, please."

Watching Miss Swivel move toward the storage place of the red-hot perfume, our heroine snapped, "If I could walk that way, I wouldn't need any perfume!"

GUEST EDITORIAL

We have a love-hate relationship with inflation. We hate inflation, but we love the self-indulgence that brings it about.

The laboring man hates inflation, but he persuades his Congressman to vote for a higher minimum wage. The business man hates inflation, but he loves the quotas that keep out low-priced foreign goods. Farmers hate inflation, but they like an increase in price supports for dairy products. Bankers hate inflation, but the banking system generates the new money that causes it. The home owner hates inflation, but he likes to pay off his mortgage with cheap dollars.

The housewife wants a price-rollback for meat, but she doesn't want the empty meat counter that would result. The apartment dweller wants rent control, but doesn't want the housing shortage that in time would follow. We citizens want stable prices, but don't want to pay the taxes needed to take the upward tilt out of the price level. We all hate inflation, but we love the increased employment that seems to go with it. We want the dollar value of our assets to rise and the real burden of our debts to decrease; inflation assures that these things will occur.

We want our public officials to make a valiant effort to curb inflation. But we don't really want them to be successful, except as success might come from restricting somebody else. From the standpoint of the nation as a whole, there is nobody else.

Inflation results from the actions that citizens demand from their government. Pogo, the comic strip character, said it all in one sentence: "We has met the enemy and they is us."

This love-hate relationship with inflation is not unique to the United States. Reasonably reliable price statistics are kept by twenty developed countries. Since 1970, price increases have occurred in every one of these countries. The average increase was 21 percent. Our performance was the best; in the United States the increase was only 12 percent.

With modern monetary and fiscal institutions, a country can have whatever price level it wants. By restricting the creation of new money, by disciplining the budget, by curbing the power of industry and organized labor, and by adjusting the exchange rate, a country could have a reasonably stable price level. The fact that none of the twenty countries has done so is ample evidence that, while we all say we want inflation to be suppressed, we really want other things more.

Inflation is like sin; deplored in word, but practiced in deed. — *Don Paarlberg, Director of Agricultural Economics, USDA.*

THE FINAL WHISTLE

As I travel around the Northeast, I make it a point to read local newspapers to get, as the Howard Johnson commercial would say, "the flavor of America."

A topic of universal interest is education, and the costs of the educational system. It seems that proposed school budgets are being rejected by voters more than usual this year.

One casualty of such rejections is often interscholastic sports . . . no more football or basketball team (or any other sports team, for that matter). This creates anguished cries on the part of some, but I wonder if interscholastic sports are really all that important to the educational process.

It always seemed to me, from my years of serving on a school board, that a relatively few individuals reaped the benefits of expensive interscholastic sports programs . . . as contrasted to the very large number participating in an intramural program within the school system. As the budget crunch overtakes one school district after another, it seems reasonable to me that some of them terminate interscholastic sports.

What's your opinion?

THE PASSING PARADE

Many years ago, publisher Jim Hall worked for a fertilizer company in Florida. A salesman tried to sell the employees on a group health insurance program, but reminded them that there had to be a 100 percent signup if the plan was to be applicable.

Everyone signed but Jim, and the foreman finally went to the owner and said, "It looks as though we can't get the cheaper group rate for that insurance . . . Jim Hall won't sign up."

The boss said, "Send Hall in."

As Jim came through the door, the boss growled, "Hall, you s.o.b., you either sign up for that insurance, or you're fired!"

So Jim signed . . . and a few days later a friend asked him how come, especially after swearing up and down he'd never get involved in a group insurance plan.

"Well," Jim said, "nobody ever explained it to me before!"

Left to right: John Kowalski (a nephew), Dick Rigsbee (Agway Dairy Enterprise Salesman) and the Leisers, Skip, John and Warren, discuss plans for a second storage bunker and new free-stall barn.

Some people say the Leisers "could make milk out of sawdust"

The Leisers have been doing business with Agway for over 35 years. During that period, they've accepted Agway recommendations on feeds, feeding, crop management and other dairy practices.



Today, for instance, they're following Agway's direct-seeded alfalfa program to raise most of the protein they need. Agway corn hybrids supply much of the energy. And Agway's Total Dairy Ration Profile program, based on regular forage tests, helps utilize both protein and energy to the greatest advantage.

Feeding is based on a Total Mixed Ration. And an Agway Schwartz mixer wagon is the key to the program. According to Skip Leiser, the wagon *"does a great job for us. Every time you feed, you know that each cow is getting the exact ration you want her to get.*



"I like Agway's whole approach to feeding," adds Skip. *"You start with what you have and build on it. That's how we got onto direct-seeded alfalfa. Most of it goes into the bunker as haylage. We make the rest into hay. And it works out fine."*

Dick Rigsbee, the Agway Dairy Enterprise Salesman, sits in on most of the Leisers' planning sessions. *"And why shouldn't he?"* asks Skip. *"Dick is on top of all the latest in crops management, feeds and feeding and ways of doing things better. We know we can count on him for good, sound advice."*

If you'd like to strengthen your farm management team, and gain from Agway's experience on hundreds of farms like yours, just call your local Agway Store and ask for an Agway Dairy Enterprise Salesman.

Farm Enterprise Service AGWAY

Northeast FARM EXPERIENCE

SAVES ON SOYBEANS

Mark Hershey, custom feed handler and farmer from Lebanon, Pennsylvania, has a big pressure cooker that steam-cooks up to three tons of soybeans an hour . . . and a long list of clients who feed whole, cooked and rolled soybeans to their hogs and cows. Why do they do it? It's cheaper.

Cheaper than what? The comparisons were made in relation to purchased soybean oil meal, which runs about 44-percent protein, whereas whole cooked soybeans run 37.9 percent. Nonetheless, farmers who had previously been buying soybean oil meal had converted to the cheaper whole cooked soybeans because they were cheaper per unit protein, as well as cheaper per ton. Besides, there is enhanced feedability when fed whole, and 18 percent fat in the whole bean as opposed to 5.3 percent fat in soybean oil meal.

Explanation

"It's like this," said Earl Gantz, a hog grower from nearby Millersburg, who was at Mark's mill picking up a load of beans. "These whole soybeans aren't quite as high in protein, but they're around $6 a hundred cheaper. I mix about 250 pounds of cooked beans with enough corn to come up with a ton of ration. This varies with the age of my hogs. I get a good 12-to-15-percent protein ration and with that extra energy the whole beans have, I can cut down on the amount of corn I use.

"You might look at the 12 percent extra fat as free gravy, plus I think it puts a better finish on my hogs." Earl has been on the whole-bean system for eight months and says his hogs welcomed with open mouths the cooked, rolled beans.

There are many dairymen, as well as hog farmers, on Mark's list of clients. The poultry angle is a little tougher, since grinding would be required and Mark doesn't think there are enough locally-grown beans to accommodate the huge "egg factories."

Mark gets locally-grown soybeans for processing from a 100-mile radius. Last year he processed 125,000 bushels. He grows some of his own beans, buys some, and is willing to custom-process as well. He has other milling equipment and does a considerable amount of work for feed companies.

"I got into this cooking thing back 13 years ago when I had broilers," he recalls. "You know, in broiler feed they always used to add a little oil. Well, I couldn't see buying soybean meal that the oil has been taken from, and then turning right around and adding oil in the end. It didn't make sense."

Mark's operation is rolling full steam ahead with the recent surge of interest in protein . . . and soybeans in particular. "I'm not trying to say that steam is the best way to cook soybeans," he emphasizes. "Roasting and extruding are other ways of doing the same thing. But at present, I think the equipment for these other two processes tends to be a little slower and quite costly."



Mark kneels next to the chute where the piping-hot soybeans, already rolled, drop into the pellet cooler.

Homemade

Mark's present cooker is a two-flight, homemade machine that looks like a sideways "U." The beans are fed in, move across the top flight, down, across the bottom flight, down through a rollermill, and into a pellet cooler. Each bean spends about 15 minutes in the cooker. One hundred pounds of steam pressure cooks the beans at 217 degrees Fahrenheit.

In southern Pennsylvania, soybeans are becoming more prevalent. For some farmers there, feeding cooked, rolled soybeans is a feasible alternative to more traditional methods of obtaining soybean protein. If soybean interest stays high and northerly soils and climates prove conducive to their culture, at least some Northeast farmers should keep an eye on the whole bean. — *E.P.A.*

NEAR SUBURBIA

John Boor, Jr. and his family operate a 70-cow dairy farm near Horseheads, New York. It's an area that was once almost entirely rural, but modern homes have sprouted up and down the roads now . . . including the Middle Road where the Boor homestead is located.

"We have wonderful neighbors" John comments, "and we make it a point to try to confine our manure spreading to appropriate times when odors will be least offensive. But we don't yield to the temptation to start selling some high-priced building lots off the farm, because we think that's just asking for long-range problems as far as farming is concerned . . . and we have enough of those already."

Herd Health

A problem common to every dairyman involves herd health. John comments, "The weigh jars in the milking parlor are the best health devices we have . . . they provide an early signal that something is wrong with a cow down on production." The parlor is a double-three herringbone, and the Boors use six units to milk.

Six ordinary units are not normally recommended in a parlor this size. However, these units cannot over

AGWAY FARM ENTERPRISE SERVICE AGWAY

4-Point Program for Fighting the Feed Cost Squeeze

As you switch your dairy herd to a fall feeding program, be sure to keep your total ration in balance. Avoid inefficiencies that cut into profit, especially in this year of higher feed costs.

Follow the four steps explained here. Your Agway Enterprise Salesman is ready to help you.

1 TEST YOUR FORAGE

Homegrown or purchased, your forage should be tested for protein and energy content. Sample your forage as it goes into the silo or haymow and again as you start to feed out a new batch.

With this information at hand, you can then proceed to build a balanced feeding program around your homegrown forage. To assist you with this important and complex job, Agway offers its unique TDR (Total Dairy Ration) Profile service.

2 GET A TDR PROFILE ON YOUR FEEDING SITUATION

The TDR Profile gives you the kinds of information you need to select the most efficient combination of homegrown forages, and concentrates to maintain top production at least cost.

The TDR computer program considers total protein, energy and fiber needs, plus calcium-to-phosphorus and forage-to-grain ratios. Then it prints out the most efficient, well balanced options. From these, you and your Agway Enterprise Salesman can select the one that works best for you.

Fine-tuning your feeding program with an Agway TDR Profile can help you conserve and utilize *all* nutrients effectively.

In one recent case where Agway helped rebalance the feeding program for a 100-cow herd, savings amounted to $209 per week. In a controlled field research study, fourteen dairymen compared their Agway-balanced program to their previous programs. Results: $65 additional net income per cow per year. How would you like to have that much more money in your pocket for every one of your cows?

milk the cows . . . so one person can handle six units.

Pursuing the subject of herd health, John reports a preference for cows to freshen in months other than February, March or April. "We hardly ever have a calving problem in the summertime," he comments. "In spite of all the advances the industry has made in terms of animal nutrition, I think cows are healthier when they're outdoors," The milking herd goes to pasture (one 15 acres, another 10 acres) in the summer.

In August of 1971, a bolt of lightning struck the barn at the Boor place. Part of it burned, along with 22 cows. But neighbors rallied 'round, helped rebuild . . . and within eight days the herd was being milked at the home farm once more. The setup now has 81 freestalls (each with a rubber-mat bed), two Harvestore silos (a 2060 and 2027), and a 22×60 concrete-stave silo.

No Hay

"We feed practically no dry hay to the milking herd," John says, "but rather corn silage and haylage."

The corn silage is fortified with a 40-percent-protein supplement, and haylage is sweetened with high-moisture shelled corn. A pelleted grain ration is fed in the parlor in amounts according to each cow's production. The milking herd is not split into two groups, John believing it's not really numerous enough to justify it.

"We planned on using the high-moisture corn in the parlor," John says, "but we found it more desirable to mix the HMSC with haylage."

John and his wife Jean were both IFYE exchangees (International Farm Youth Exchange) . . . John to India, and Jean to Israel. The Boor children (David, 16; Kathy, 14; and Anne, 9) are all involved in the operation of the farm. A neighbor, retired from dairying, works for the Boors part time each day.

Is it possible to successfully operate a dairy farm amidst a burgeoning suburbia? The Boors provide proof that it can be done!—*G.L.C.*

MINIMUM TILLAGE

Some New York farmers are finding the no-plow system helps achieve lower production costs, reduces labor and has several other benefits. According to Cornell University agronomists, minimum tillage is used on 18,000 acres of corn in 35 counties. This method has been in use for four years on the L.S. Huntington and Sons, Inc., operation near Cooperstown, New York.

"People used to drag their cornfields four to six times," explains Peter Huntington, who runs the 220-cow dairy operation. "Now they don't do it at all. To get the quality of silage we want, I plant both long and medium-season corn varieties and need to plant earlier — the end of April or first week in May."

Planter

In 1968, he bought a no-tillage planter, and has since updated to a 6-row unit, with 30-inch rows. Two years ago he tried 36 acres of zero-tilled corn and in 1972, 40 acres



Peter Huntington

of corn were produced under this method. However, he found his best results with a once-over discing.

"In 1973, I stayed with the once-over tillage to work manure into the soil," Huntington says. "I believe this method gives me quicker germination and even after four straight days of rain, I can get into most of my minimum-tilled field within 24 hours."

It's three times over the field until harvest on the Huntington place. First goes the disc; then comes the planter with a spray boom mounted on it; last comes a trip to sidedress nitrogen. After two years of this system on a field, Huntington likes to turn the soil over with a plow to keep it from getting hard, and to allow him to plow down potash.

His weed and insect control in 1972 involved Diazinon for rootworm, a combination of AAtrex and Princep for foxtail, crabgrass and other annual grasses, and Banvel for leafy spurge.

Near West Winfield, New York, the Huxtable dairy farm includes 180 milkers and 100 young stock. The family has been in the dairy business since 1790; the present operators are brothers David and Jim Huxtable.

Speed and time saved were important factors in bringing the Huxtable brothers to no-plow.

"We usually can't plow until late April, and with our expanding dairy operation, that didn't leave enough time to get in sufficient corn for feed," explains Jim. "We wanted to reduce labor and go to a wider planter, so we bought a no-tillage unit and planted right in the stubble or sod."

They learned about the practice from the Extension Service, and first tried it in 1971. On the sod they used Paraquat and AAtrex . . . plus 2,4-D and Banvel where needed. The second year, on corn stubble they applied AAtrex and Princep on about 70 acres.

On zero and minimum-tillage systems, weed control is important because there is no place for a cultivator in those fields. That hasn't deterred the Huxtables from planting most of their 200 acres of corn with no tillage.

"For the same production cost as conventional corn," Jim explains, "no-tillage gives us flexibility. In the fall we can harvest even if it's wet . . . where on plowed ground we were out of luck.

"Aside from the labor-saving, we

(Continued on next page)

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3 UTILIZE THE EFFICIENCIES OF RATIO:RIGHT FEEDS

Agway Ratio:Right feeds and concentrates contain energy-to-protein ratios and other ingredients that have been carefully selected to balance the forages and grains grown on Northeastern farms.

Ratio:Right feeds are an important part of your TDR Profile. With these feeds specifically matched to your forage by the TDR Profile, you don't have to overfeed protein to meet energy needs, or vice versa. Your herd gets *only* the protein and energy needed to achieve top production at least cost. You buy *only* the nutrients needed to balance the forages grown on your farm.

4 SAVE ON PROTEIN COSTS WITH AGWAY LPS

Agway LPS (Liquid Protein Supplement) will deliver more protein equivalence per dollar than any other commercial protein source. That's why Northeastern dairymen are using twice as much as they were last year.

With the convenient Agway wheel feeder, cows can adjust their LPS consumption in relation to the protein supplied by their daily forage and grain intake. Trials at the Agway Farm Research Center with the specific Agway formula show that cows tend to consume only the amount needed to balance their needs. This means a double value: assurance that each cow gets adequate protein each day, and assurance that valuable protein is not wasted.

And once you have an Agway LPS feeder or bulk tank installed, you don't have to worry about keeping it filled. Delivery is automatic if you wish.

Free-choice or top-dressed, Agway LPS is the sensible way to feed protein—especially in this year of high protein costs.

Maintaining a profitable operation in the face of today's higher feed costs demands an ever-increasing amount of your time in making management decisions. And it takes the right kind of information to make those decisions. This is where Agway and your Dairy Enterprise Salesman can assist you most.

Call your local Agway and ask for a Farm Enterprise Salesman. He's ready to help put a 4-point program to work for you.

NEFE . . . . .

(Continued from page 13)

don't have trouble plowing, picking up stones, or spraying on side slopes. We even planted in a light rain one day, and the planter holds. We used to have to allow for 2 feet of drift across the field with conventional planting."

He feels this system gives better results on land that is already high in fertility. His crop yield ran as high as 20-25 tons of silage, and last year he harvested 3 to 4 tons per acre of high-moisture ear corn. His row width is 32 inches.

James (left) and David Huxtable in the milking parlor.



FEEDING PIGS

Paul Strong and son Lysle feed out pigs on a farm near Himrod (Yates County), New York. They have 75 of their own sows, and buy in a few extra pigs to fill up the finishing house.

This house is 36×160 feet, has pens measuring 10×14 feet, and housed 450 pigs at the time I visited. Under one end is a manure storage tank 36×48×8 feet . . . manure accumulating in a fenced perimeter concrete ditch running along the rear of each pen is scraped once a day into this tank. "If we were to build again," Paul says, "we'd make that ditch wider and shallower so pigs could be allowed to cross it."

Most pens have a pig that grows slower than the rest. "Don't take him out when the others are sold and introduce him into a pen of younger pigs about his size," cautions Paul. "They'll gang up on him, and in some cases kill him. Instead, gather together five or six slow-growers from several pens, and introduce the **whole group** into the pigs of another pen . . . then things will work out okay."

Growing pigs are fed by hand-scoop twice a day. Antibiotics are included in feed until pigs reach 125 pounds in weight, then discontinued. The Strongs have practically no homegrown grain to feed, buy most of it from other farmers in the area. Paul operates a Purina feed business in nearby Victor, so commercial supplements can be procured in volume.

"We're really selling our management and labor through this operation." Paul comments. "The price of pork **has** risen from last year," he goes on, "but corn has jumped during the same period from $55 to $80 per ton . . . and soybean oil meal at more than $300 per ton now is enough to make any meat producer squirm!"

Pigs come into the growing unit at a weight of 30 to 40 pounds each. When they reach 60 to 125 pounds, the protein level of the feed is reduced . . . and it's reduced again when they hit 125 pounds. The Strongs' goal is to sell 35 market pigs per week; most of them presently go to the hog marketing pools at Waterloo and Caledonia.

Sows are kept in a building . . . in one end of which is a farrowing area . . . well separated from the growing house. The Strongs are still in the process of completing this setup. — *G.L.C.*

CASH CROPPING

Roger Treleaven farms 600 acres (500 tillable) on West Townline Road near Interlaken (Seneca County), New York. His is a cash-crop operation, including in 1973: 80 acres of buckwheat, 65 of red beans, 35 of wheat, 150 of oats, 25 of rye, and the rest mammoth clover.

The red beans are grown to produce seed . . . the Redkote variety developed in New York State, and resistant to halo blight. Roger also grows the clover for seed, one-half the oat acreage for the same purpose, and all of the rye. Buckwheat goes to area mills for processing into flour.



Roger Treleaven in a field of York-tar wheat.

"The price this year for buckwheat looks like $4.50 to $5.25 per hundred," Roger comments. "I like to plant it between July 4 and 10 . . . find that its planting and harvesting works in well between oats and beans."

He has an arrangement with a beekeeper to place hives of bees in the area to aid pollination of buckwheat blossoms. Buckwheat straw . . . as well as all other straw . . . is plowed down. "It's worth more to me in the ground than in the bale," Roger comments. Soils on this farm run toward the heavy side, and organic matter is important to improve soil tilth.

This year, Roger used a combina-

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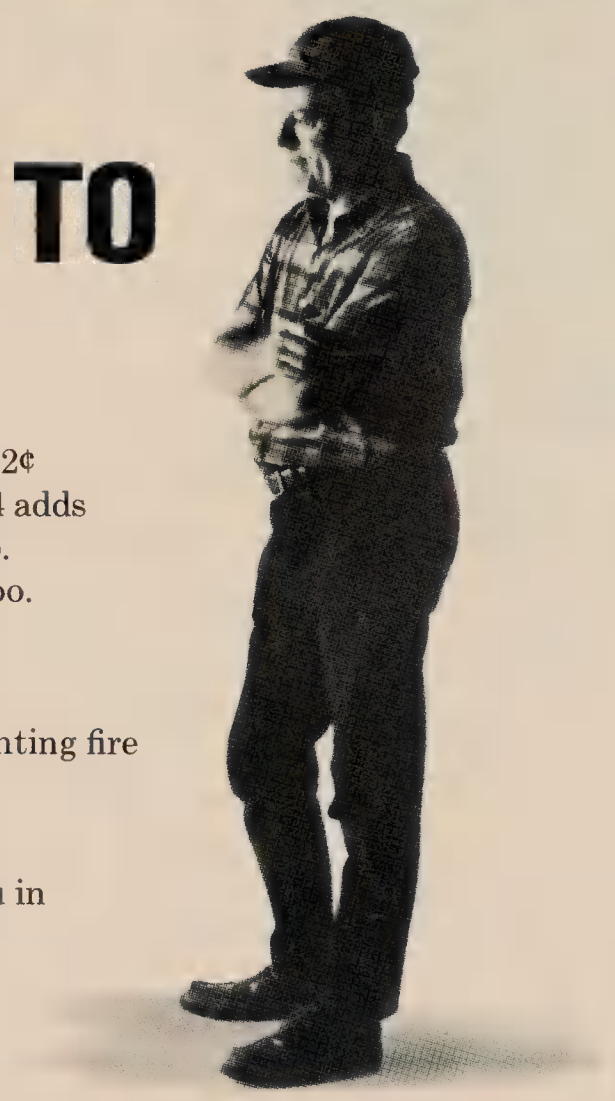
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For maximum discounts, place your order soon. Your Agway Enterprise Salesman will assist you in calculating your needs.

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Applying P & K now pays off in more ways than one. It frees valuable time and equipment for spring planting. It lets you take full advantage of Agway's fall discounts. And, most important, it assures you of adequate supply in what is likely to be another tight-supply year.

The simple way to put your P & K down is with Agway's Certified Spreader Service. To make sure you get your P & K down before winter sets in, call Agway right away.

Complete your fall lime-up now

If your fields aren't in a pH range of 6.2 to 6.5, you're losing production. And chances are, if you haven't limed in the past two years, your fields are not in this range.

Lime is important to bring your soil up to its productive potential and to assure greatest return on fertilizer input. Lime helps add protein to alfalfa—so important with today's higher protein costs. Plus, lime is critical to the effectiveness of herbicides.

Take time to soil test this fall. And call for the Agway Certified Spreader Service while there is still time.

tion of Eptam and Treflan as a herbicide on beans. "I've used Eptam for years," he comments, "but noticed last year that the combination works on a broader list of weeds than one alone." — *G.L.C.*

TMR PAYS ITS WAY

Cows are like kids; they don't always eat what's best for them, or so goes the argument of those who have gone to total mixed rations (TMR, or complete rations). By this method, all the nutritional requirements of the dairy cow are so well mixed that bossy can't sort out what she likes best; she has to eat the bitter with the sweet.

Another reason for going the way of complete rations, according to Lansing, New York dairy partners Clarence and Chuck Benson, is that the system will pay for itself quickly in these times of high feed costs. They can feed the least expensive sources of protein without worrying so much about palatability.

No Soy

"No more soybeans for me," vows Clarence. "The price of my feed went up $60 a ton in one weekend. In June, I was paying $230 a ton and using 20 tons a month." Clarence says he'd rather put that kind of money into the admittedly expensive mixer wagon and mix his own ration. He's confident that at present retail feed prices the wagon will pay for itself in six months.

Chuck and Clarence operate a 120-cow freestall setup. Their forage comes from three large side-by-side trench silos that hold haycrop silage and corn silage. Clarence, a believer in horizontal silos rather than what he calls "monuments," is quick to add the opinion that high-quality haycrop silage can be made in the far less expensive horizontal silo as well as the upright. This year, his haycrop silage was analyzed at an impressive 19.6-percent protein on a dry basis.

"When we make silage," he explains, "we use two second-hand dump trucks and mound the trenches up to about 15 feet high in the center."

Feeding

Every morning, either Clarence or Chuck gets on the front-end-loader and loads designated amounts of haycrop silage, corn silage, urea, ground corn, minerals, salt and distillers grains into their "Big Auggie" mixer wagon. The wagon is equipped with a light that indicates when a pre-set weight of a particular ingredient has been reached. Then they turn on the augers in the wagon to thoroughly blend the mixture.

Three different rations (same ingredients in different proportions) are mixed for three groups of cows. Group one is those cows with daily production of 40 pounds or over. Group two is those under 40 pounds per day, and group three is comprised of dry cows and heifers.

New System

As might be expected of any new system, there are a few things that need to be worked out. Theoretically, no feeding should have to be done besides the once-a-day feeding of TMR. However, the Bensons find they must feed some grain at milkings to get the cows into the parlor.

Also, the division of groups may have to be altered somewhat. "We aren't sure 40 pounds per day of milk production should be the cut-off between groups one and two," Clarence explains. But these changes come with time.

The Bensons have been on a complete ration for only a few months, but are thoroughly satisfied with the system so far. More flexibility in composing rations and more control over what the cow eats makes this system an attractive alternative to many Northeast farmers, especially when it can pay its way! — *E.P.A.*



Extension dairy agent Bill Menzi and Clarence handle some complete ration from the bunk in the Bensons' freestall barn.



Clarence tops off a batch of complete ration with haycrop silage from trench silo. It takes an hour and a half to feed the herd.

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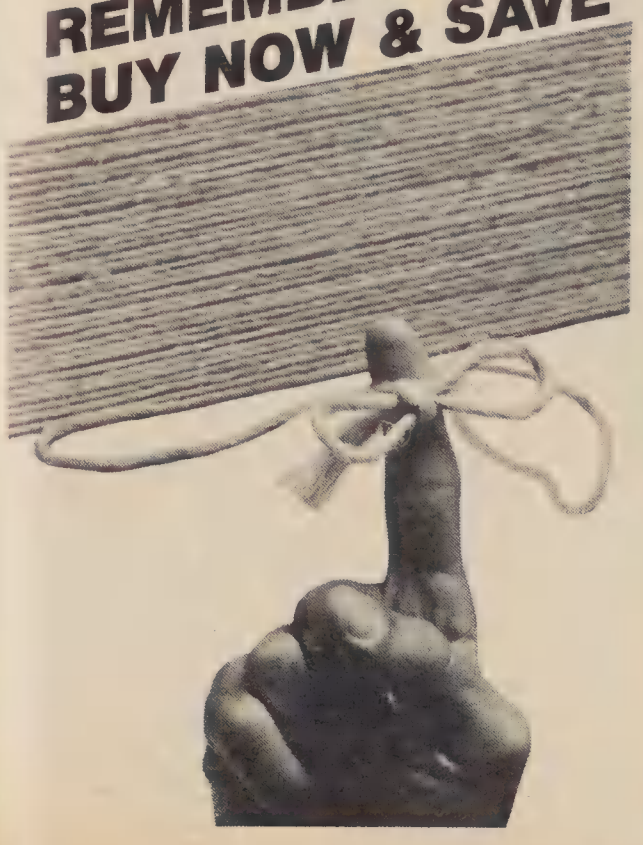
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High-yielding Energy King hybrids from Agway can help you put more homegrown corn energy into your feeding program. Agway is continually evaluating new hybrids in order to make available the best possible hybrids for the East.

Right now, Agway is taking orders for spring delivery of the Energy Kings and other fine hybrids. It's a good time to choose the ones that best match your farm.

A new full-season hybrid: Agway 834X
Excellent production potential and broad adaptability. Long, tight husks give ears good protection against weather and birds. It produces a medium-sized ear on every plant, relatively low-placed for a late hybrid. Highly recommended for silage and grain. Maturity range: 119 to 129 days.

Extremely uniform with medium-low ears: Agway 725X
In one-acre trials on six farms last year, yields averaged 133 bushels with only 1.7% lodging. Smallish ears have excellent husk cover to protect against birds. With its very good rating on standability, Agway 725X may be planted at slightly higher rates with resulting higher yields. Maturity range: 110 to 120 days (silage/grain).

A "special cross" hybrid: Agway 393S
From Maine to central Pennsylvania, this has been proving itself for superior standability, excellent disease resistance and grain yields. Large ears, well covered by deep-green husks, are carried midway on the stalk. Husked ears are uniform with deep kernels. 90 to 100 days (silage/grain).

A truly outstanding performer: Agway 590X
Offers a tremendous yield potential with a high of 37 tons of silage and 235 bushels of grain per acre. Rugged, medium-sized stalks with excellent standability. Develops an above-average ear on each plant, even at high populations. A "must" for every farm in its range. Maturity range: 96 to 106 days (silage/grain).

New star for short-season areas: Cornell 110
Vigorous early growth with above-average tolerance to cold soils. Good yields for short-season areas. 72 to 82 days (silage/grain).

Earlier hybrid with yields of over 100 bu./acre: Agway 151S
Produces extremely high-quality silage. Medium-sized blocky-type ears are relatively low on stalk. Maturity range: 70 to 80 days (silage/grain).

Big, rugged—with superior yield potential: Cornell 407
A new hybrid with improved standability and superior seedling vigor. Excellent for silage and grain. Maturity range: 88 to 98 days (silage/grain).

A good-sized ear on every stalk: Agway 595S
Excellent standability and seedling vigor and growth. Widely adapted for silage and grain. Maturity range: 94 to 104 days (silage/grain).

Excellent standability with high silage yields: new Cornell 565
Uniformly tall plants with ears carried well up on the stalk. Wide, deep-green leaves. Maturity range: 95 to 105 days (silage/grain).

Equals or outyields the best in its group: new Agway 840X
A medium-tall, uniform plant with large ears carried midway on rugged stalks. A "must." Maturity range: 112 to 122 days (silage/grain).

A truly superior, long-season hybrid: Agway 909X
Strong stalks keep growing after the others have quit for the year. Outstanding. Maturity range: 125 to 135 days (silage/grain).

Ask your Agway Enterprise Salesman for the new descriptive folders telling all about the hybrids above and others. Then let him help you select the ones that will challenge the best you've ever grown . . . the Energy Kings from Agway.



FOUNDATION HELPS

As I reflect upon the spring-1973 semester at Cornell I realize that the AMERICAN AGRICULTURIST FOUNDATION helped make it possible through the scholarship I received.

I had previously attended Erie Community College at Buffalo, New York, and received my Associate of Applied Science degree in Occupational Therapy Assistance in May, 1972. After working through the summer, I decided to return to school and pursue a field I feel is not widespread . . . yet the need is there.

To be sure this was what I wanted to do, I took a job with the 4-H Extension Service within the slum areas of Buffalo. I taught home economics and created a program of ceramics with children aged 7-16. I am presently enrolled in the College of Human Ecology . . . Community Service Education . . . Home Economics.

My future endeavors are to combine my occupational therapy with the home economics and work within a community organization teaching home economics and independent living to handicapped adults and children. From there I would initiate a special program for handicapped people through contacting those in the vicinity by publicity and handicapped people's associations.

I have done field work with physically handicapped for six weeks. It is here that I began developing my ideas. I feel that if people were allowed to learn on their own, to be able to come to a center always open for them, rather than a strained situation in a hospital, it would be very helpful.

Many Places

I have worked many places since age 16, and with each job I have encountered all types of people. My jobs included an orphanage, camp cook, waitress at a five-and-dime store, a mountain (Adirondack) resort, truck-stop coffee shop, 4-H Extension Service, and presently home-health care agency for the elderly along with a toy-factory job. For my therapy field work, I was at a state mental hospital (Danvers, Massachusetts) and a physical rehabilitation center at Cleveland, Ohio, for six weeks each.

Cornell presented a challenge to me. As a transfer student, it was difficult in regards to the amount of work required and adjustment to dorm living. I did survive, although my grades were low with a 2.26 average. I had a dean's list average at the community college. Now that I have been initiated into Cornell life, I feel that I will improve greatly in the fall. I have two more years to complete.

I am putting myself through school. I am the eldest of eight children. We have always lived in the city of Buffalo. My experiences have been varied and through the help that the Foundation has given to me, and Cornell is following through with, I will eventually be able to reach my goals.

Consequently, I would like to express to the AMERICAN AGRICULTURIST FOUNDATION my deepest appreciation and sincerest thanks for its generosity. I hope that the Foundation will always be successful.

Thank you very much. — *Mary Margerum, Buffalo, New York.*

COST SQUEEZE

Who is deciding that the farmer is making such a "profit" as reported on nationwide television? Is it a statistician or a genuine fifteen-hour-a-day farmer? Anyone can compile a sheaf of papers listing figures, but reality is often a different truth.

The cost of producing a crop, whether it be a field of red beans or a tankful of milk, has risen almost threefold from a year ago. The prices of chemicals, fertilizer, seed, diesel fuel, if you are fortunate enough to find them, have risen drastically. Most farmers are unable to do the job without hiring extra help.

After the above expenses . . . and paying a man a living wage, his fuel bill, light bill, half of his social security, all his compensation, and other incidentals . . . there isn't much left to be called "profit." Sure, we get an increase for the raw products, but always the cost of purchasing the supplies goes up accordingly or more.

Weather? It plays a most important part! For if the weather were perfect, farming would be a perfect job. When I hear people complain because they can't go camping, it makes me "uptight" for a few minutes. It means that the farmer can't plant a field of corn or harvest that badly-needed hay crop. I know it isn't their fault, so I try to smile it away. Perhaps someone up there is trying to get our attention, do you suppose?

Don't forget that the farmer is still a consumer at the store like anyone else, and pays the same price. Also, the farmer buys a great share of big machinery that plays a big role in the overall economy.

We know the sweat and prayers that go into a crop long before it ever reaches the consumer. So "Why be a farmer," you're asking? Perhaps it's the challenge that comes alive every spring; it's seeing something you've nurtured become a producing reality; it's a family working together; it's being able to look over the fields and say, "It's mine." It's being near to God and knowing down deep that somehow we have helped to make this land a better place to live. God gave us a job to do and we do it as best we can with His help. — *Mr. and Mrs. Robert Hargett, Saxojac Farm, Locke, New York 13092.*

WHITENERS

On a recent vacation to New Orleans, the expected happened at each meal. We were presented with small plastic containers of coffee and tea whiteners.

I kept some of them and have made a list of the microsized names of ingredients on the containers. Whatever has happened to cow cream? Can you, or any reader, imagine the drums, jars, boxes and bottles of these chemicals as they arrive at the whitener factory? Individually they probably are quite revolting, perhaps even gastrically dangerous.

From four brands, I have counted 22 ingredients. Some of them are common to all four brands. Here is the list of chemicals which, plus water, make substitute cream:

1. Hydrogenated coconut oil
2. Corn oil
3. Sodium caseinate
4. Mono and di-glycerides and lactylic esters of fatty acids
5. Di-sodium phosphate
6. Salt
7. Carrageenan
8. Guar gum
9. Artificial color and flavor
10. Hydrogenated palm kernel oil
11. Sugar
12. Dipotassium phosphate
13. Propylene glycol
14. Monostearate
15. Polysorbate-60
16. Stearoyl lactylate
17. Corn syrup solids
18. Vegetable fats
19. Sodium silico aluminate
20. Sorbitan monostearate
21. Emulsifier
22. Stabilizer

I can understand why these whiteners were not refrigerated! — *John Withee, Lynfield, Massachusetts.*

FOR HUSBANDS ONLY

I hope this letter gets to husbands — the kind that don't talk to their wives much. Because my husband never talked to me about what to do in case he should die before me, or some emergency left him unable to act for himself. I want to ask every husband to at least leave a letter of instruction for his wife if he hasn't done it already.

Money, property, or benefits may be lost because there is no record available to make proper claim for their recovery. I never knew until my husband died that a birth certificate is necessary to file for benefits and funds from various sources.

My husband didn't tell me where he kept his important papers and I couldn't find them. This resulted in quite a bit of trouble as I didn't know which hospital he was born in, but fortunately he went to a local school and I was able to get a letter stating when he was born, according to school records, which was accepted in place of the birth certificate. To avoid unnecessary financial loss, it is urgently suggested that a check list be kept in a safe but accessible location.

If you haven't made a will, go to a lawyer without delay. Like my husband, you may be gone tomorrow even though you seem well and strong today.

I hope you'll make an inventory of what you have and its probable value. Everyone should have a record book just to keep track of things that are bought, when or where they are bought and how much they cost. Then when things have to be sold it will be much easier to figure out how valuable everything is.

List

As soon as possible, write down who your lawyer is, his address and phone number, where your will is kept, what your social security and health insurance number is. You should list your bank accounts and their numbers as well as insurance policy numbers and companies (life, car, home, etc.) Get your birth certificate and important papers needed



Ronald Goddard, general manager of Agway (center), accepts a plaque of appreciation from the national FFA for Agway's continuing support of the organization. FFA leaders presenting the award are, from left: David Galley, Garrattsville, New York; Bruce Erath, Grahamsville, New York; Dwight Seegmiller, Decorah, Iowa; Wayne Fletcher, Lisbon, New York.

to settle legal affairs together and tell your wife where you keep them. Your wife will need the income tax returns, credit card account numbers, cancelled checks, safe deposit box key, etc.

If there is any money due you from anyone, or if you have borrowed from or loaned anything to anyone, write that down. After my husband died, a friend of his told me that my husband borrowed something from him, but we couldn't find it.

Notes

If any personal property is in the possession of someone else, make a note of that. If you have made arrangements with anyone about anything be sure to jot this down. After you die someone might say that you promised to do something and if your wife knows nothing about it, this can cause a great deal of mental anguish.

Your wife should have a bank account of her own that she can use to pay the bills that will come up before your legal affairs are settled by the lawyer. Each of your children should have a savings account in case something happens to both you and your wife. Make it a habit, when your children get gifts of money, that part of it goes in, the bank. Teach them, when they get a job, to bank part of every paycheck to take care of expenses in an emergency.

Insurance and other funds take time to get. Ask your children, when they get cars of their own, to take good care of their insurance policies. Make sure they know where their birth certificates are. Get a special box for each of them to keep important papers in.

If you have handguns and your wife has no permit, be sure to tell her what to do. If the wrong person gets hold of them, they might be destroyed. There are special gun laws and regulations you should know about.

Please, husbands, instruct your wives (and children as soon as they are old enough) in how things should be taken care of after you are gone. — *Mrs. Frank Osterc, Fishkill, New York*

STOP MULTIFLORA

I consider multiflora rose a serious pollutant, at least in some areas. Some 25 years ago, we planted this around a hillside tree planting near a farm pond. It was recommended as bird food and wildlife cover.

As long as the land was farmed, pasture fields were kept free of the plant . . . but birds fed on it heavily, and it soon choked the area around the pond.

Several years later, we sold most of the farm and built a new house near the tree planting. The rose has become an almost continual problem, and it's an almost impossible task to remove it from tree planting even with bulldozers.

Almost all fields near the pond are completely worthless because of this pollutant and it will be costly to reclaim them.

I feel the Department of Conservation and other such groups should stop recommending this as a planting, or at least include a warning with it. — *Myra Snook, Newton, New Jersey.*

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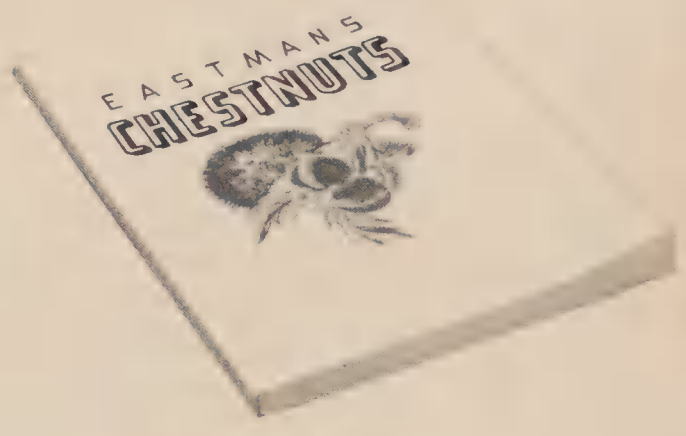
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Vol. 1 No. 1
Reproduced from
April, 1842

One —

or Two



"That day in which we have not laughed is useless."

You may have an exact reproduction of the very first issue of American Agriculturist published in April, 1842. Each page was carefully photographed and then all 32 pages (9″ × 6″) offset printed on paper as nearly like the original as we could find.

Let me warn you — when your copy arrives, do *not* start browsing through it if you have anything that has to be done in the next hour or two because it's one of those things you can't put down!

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Back in 1923, the late Ed Eastman printed a short, humorous little item in the southeast corner of his editorial page. With rare exceptions, every issue of AMERICAN AGRICULTURIST carried one of his Chestnuts until he died. We printed "Eastman's Chestnuts" — Vol. I, in 1936. We printed 4 more volumes between 1936 and 1958. A few years ago we put the best of the Chestnuts in Vol. VI — just the way Ed wrote them.

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New York Fair Winners

(All addresses in New York State unless otherwise indicated)

AYRSHIRE

Females:

Senior and Grand Champion — Haynes Farm Royal Ruth 3rd, Robert, Jr. and Adelbert Haynes, Tully.

Reserve Grand Champion — Melody Lane Elinor, Fred Bova, Burke.

Junior Champion — Clover Crest Rex Sybil, Marshall Cheesman, Ellenburg Depot.

Bulls:

Junior and Grand Champion—Galney Flashy Joke, Julia DeLavergne, Dansville.

Senior Champion — Melody Lane Eban, Clifford Bullock Family, Edwards.

Reserve Grand Champion—Haynes Farm Mister Clark, Donna Haynes, Tully.

BROWN SWISS

Females:

Senior and Grand Champion—Vine Valley Paul Lu Ann, Leon Button, Rushville.

Reserve Grand Champion — Venture's Dandy Dot, Velva and William Notter, Jr., Cobleskill.

Junior Champion — We-Gotta Reflector Pietje, Jerry Harkness, Marcellus.

Bulls:

Senior and Reserve Grand Champion—My-T-Fine Touchdown, Peter Klotzbach, Jr. & Sons, Corfu.

Junior and Grand Champion—Venture's Syndee Leo, Velva and William Notter, Jr., Cobleskill.

GUERNSEY

Females:

Senior and Grand Champion — Mountleh M Emerald, Henry Venier, LaFayette.

Reserve Grand Champion — Wyoming Darimost Mirage, Cristel Ripley, Cortland.

Junior Champion — Golden Harvest Dari Jubilant, F.W. McCann, Bridgewater, Connecticut.

Bulls:

Senior and Grand Champion—High Meadows of Flemingdale, Paul and Margaret Fleming, Cortland.

Reserve Grand Champion — High Meadows Dari Zoro, Suzanne Venier, LaFayette.

Junior Champion—High Meadows Ambassador, Henry Venier, LaFayette.

HOLSTEIN

Females:

Senior and Grand Champion — Springmedow Citation Lady, James Brewster, Jewett City, Connecticut.

Reserve Grand Champion — Mathewsfield Charmer Countess, John Sullivan, LeRoy.

Junior Champion — Royal Haven Maple Belle, Lynn and Bonnie Miller, Towanda, Pennsylvania.

Bulls:

Senior and Grand Champion — Walker Farm Irish Fury, Kay Walker, Falconer.

Reserve Grand Champion—Silvery Falls BE Carmen, Herbert and Wilbur Farney, Lowville.

Junior Champion — Wonder Boy of Hapeman Hill, Hapeman Hill Homestead, Bombay.

JERSEY

Females:

Senior and Grand Champion — Garth Milad Epic Linda, Herbert Staring Family, Lowville.

Reserve Grand Champion — Favorite Marlu Nite, Nancy Jo Taylor, Walton.

Junior Champion—Parkview Basil Lynn, Herbert Staring Family, Lowville.

Bulls:

Senior and Grand Champion — Vaucluse Star Mascot, Dean Bezek, Waymart, Pennsylvania.

Reserve Grand Champion — Commando Milkman Sleeper, Frederick Luchsinger, Syracuse.

Junior Champion — Mags Jester B Sleeper, Tim Austin, Dryden.

MILKING SHORTHORN

Females:

Senior and Grand Champion — Hillholm Cadi Dahlia, Susan Vaadi, LaFargeville.

Reserve Grand Champion — Westover Imperial Liz, C. Eugene, Gertrude and Richard Lathrop, Sherburne.

Junior Champion — Hillholm Fancy Dahlia, Susan Vaadi, LaFargeville.

Bulls:

Senior and Grand Champion — White's Jasper Snow, William Fritz, Churchville.

Junior and Reserve Grand Champion — Sprucewood Scarlet Lad, Richard Baylor, Churchville.

ANGUS

Females:

Junior and Grand Champion — Blackbird D499 of Sayre, Mr. and Mrs. Sayre MacLeod, Phelps.

Reserve Grand Champion — Georgina 410D of Sayre, Mr. and Mrs. Sayre MacLeod, Phelps.

Bulls:

Senior and Grand Champion — Juanada 7 of PJM, J/W Farms, Sheffield, Massachusetts.

Junior and Reserve Grand Champion — Great Northern of B.L.F. 34, Bent Lee Farm, Brant Lake.

CHAROLAIS

Females:

Senior and Grand Champion — Lands End Diamant 222, JCL Cattle Company and Towpath Farm, Dayton, Maryland.

Reserve Grand Champion—HF080

(Continued on page 20)

Food For The Spirit



by Robert L. Clingan

The late Robert Frost, New England poet, was a great believer in individuality and independence. In an interview shortly before his death, he said that the independent individual, if at a theatre fire, would rather be burned than trampled to death and would step aside and look for his own exit.

Our society today is greatly in need of that kind of individuality and independence. There is almost too much emphasis on team play. One of the Watergate perjurers said he went along with fabricated stories because he wanted to be loyal to the team.

Preference

For a time, some of our industries have given promotion preference to drab characters in their "gray flannel suits." Our turned-off, alienated youth have sometimes simply exchanged one kind of conformity for another. In some instances, they have become a look-alike, think-alike generation.

Several years ago there was a popular song entitled, "I've Got To Be Me." This is what we all need to be . . . ourselves.

Jesus had an understanding of human individuality. He never gave the same word to every individual He encountered. Each had different needs and to each He gave a different answer.

Even in the choice of disciples, He chose a wide range of distinct personalities. Not only that, He never made them into "cookie-cutter" copies of Himself. He wanted each to be fully himself in the service of God and man.

DELINQUENT

We read in the paper and hear on the air
Of killing and stealing and crime
everywhere.
We sigh and we say as we notice the trend,
"Are they all rebels, have they no end?"
But can we be sure, if it's their fault alone,
That maybe a part of it isn't our own?
Are we the guilty who place in their way
Too many things to lead them astray?
Too much money to spend, too much idle
time
Too many movies of passion and crime.
Too many children encouraged to roam
By too many parents who won't stay at
home.
Kids don't make the movies, they don't
write the books.
They don't paint gay pictures of gangsters
and crooks.
They don't make the liquor, they don't run
the bars.
They don't make the laws, they don't make
the cars.
They don't peddle drugs that addle the
brain,
That's all done by older folks, greedy for
gain.
By the law of blameless the Saviour made
known,
Who is there among us to cast the first
stone?
For in so many cases it's sad but it's true,
The title "Delinquent" fits older folks, too.

(This poem, written by a fifteen-year-old girl who was a juvenile delinquent, was published in the Dutchess County Cooperative Extension News.)

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95 or 120 bushel capacity . . . hydraulic or mechanical drive . . . with or without an electronic scale, break-away unloading auger extension, or power bale feeder . . . Mix-All's unmatched grinding uniformity remains the same. The big 21″ mill welcomes material with more hammers per square inch of screen area than any other mill. 66 sharp hammers! It's this combination that means greater capacity; that turns out more uniformly ground feed using larger screen meshes and less horsepower. Material is cut — not pounded — to assure uniform grinding. That means better mixing with other ingredients. A heavy-duty V-belt drive keeps the power positive. The 7″ diameter direct mill-to-mixer auger keeps the job moving. And, a high-pivot (46″) unloading auger adds to your reach. Mix-Alls offer you the personalized adaptations, the big capacity, and the constant uniformity you want and need. See for yourself why Gehl Mix-Alls are the world's most popular feedmakers. Ask your Gehl dealer about the 95MX or the 120MX.

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Taunton	Westville Equipment

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Epping	J. F. Brown & Sons, Inc.
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NEW JERSEY

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Sussex	Sussex Welding & Farm Equip.

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Arcade	M. C. & C. M. Drake, Inc.
Blossvale	Jay's Sales & Service, Inc.
Brisben	Chenango Farm Supply
Canandaigua	Coryn Farm Supply
Canastota	Whites Farm Supply, Inc.
Canton	Robinson Farm Eq. Co., Inc.
Cazenovia	J. C. Lucas & Sons, Inc.
Central Square	Central Square Equip. Corp.
Clinton	Clinton Trac. & Imp. Co., Inc.
Cortland	Cain's Trac. & Imp., Inc.
Cuba	Ernest D. Witter
DeRuyter	H. W. Cook Farm Serv., Inc.
Depauville	Carl C. Fry, Inc.
Dryden	Dryden Implement, Inc.
East Palmyra	O'Meal Tractor, Inc.
Fillmore	Rickett's Farm Supply, Inc.
Fort Plain	Hallsville Farm Supply, Inc.
Frankfort	Urgo's Farm Supply
Franklin	Ray Tilley and Son, Inc.
Gouverneur	Dodd's Motor Corp.
Ghent	Rivenburgh Equipment
Hamlin	R. C. Schepler & Son
Hammond	Edwin Hadlock & Sons
Hobart	PVW Farm & Recreation, Inc.
Horseheads	S. C. Hansen, Inc.
Jeffersonville	Jeffersonville Garage
Lowville	Foster Millard
Medina	Ridge Equipment Co., Inc.
Munnsville	Howard Landers
Nichols	Thetga Farm Supply
North Java	Java Farm Supply, Inc.
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Oneonta	West End Implement Co.
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Richfield Springs	Leo M. Filburn
Salem	Salem Farm Supply, Inc.
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Sharon Springs	Edgar J. Handy
Sherburne	Chenango Farm Supply
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Weedsport	Otis Jorolemon & Sons
Westfield	Rammelt & Sons Inc.
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VERMONT

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Hardwick	Rowell Bros., Inc.
Middlebury	Champlain Valley Equip., Inc.
Poultney	Charles H. Monroe
Richmond	Sumner Farr

Gehl Company
West Bend, Wisconsin

NEW YORK FAIR WINNERS

(Continued from page 18)

Leslie Pancho, Robert and Martha Hazard, Tully.

Junior Champion – Lands End Diamant 402, JCL Cattle Company and Towpath Farm, Dayton, Maryland.

Bulls:

Senior and Reserve Grand Champion – J.B. Buffalo Jr., Judd's Bridge Farms, New Milford, Connecticut.

Grand Champion–Monsieur Phillip GM, Glenn Baslow, New Milford, Connecticut.

HORNED HEREFORD

Females:

Champion–Dutchess 002, Dutchman Hereford Company, Wrightsville, Pennsylvania.

Reserve Champion – Dutchess 986, Dutchman Hereford Company, Wrightsville, Pennsylvania.

Bulls:

Champion – 26 Domino F340, Dutchman Hereford Company, Wrightsville, Pennsylvania.

Reserve Champion – TR Advance 0519, Amelia Peabody, Dover, Massachusetts.

POLLED HEREFORDS

Females:

Senior and Grand Champion – FLF Domestic Lass 36, Falklands Farm, Schellsburg, Pennsylvania.

Junior and Reserve Grand Champion – GHA New Trend Kathy, Kiyiwana Farm, Stormville.

Bulls:

Senior and Grand Champion – RHF Victor 7110 1121, Tjardes Farms, Gibson City, Illinois.

Reserve Grand Champion – RHF Victor 7110 1168, Tjardes Farm, Gibson City, Illinois.

Junior Champion – Eln Anx Murphy 18, Falklands Farm, William and Elizabeth Nolan and Hugh Lynch Farm, Schellsburg, Pennsylvania.

SHORTHORNS

Females:

Senior Champion – Timberlee's Secret BG7, Windholme Farm & Smalstig, Inc., Orange, Virginia.

Junior and Grand Champion – Timberlee's Lavender F16, Windholme Farm & Smalstig, Inc., Orange, Virginia.

Reserve Grand Champion – Timberlee's Augusta Lady F3, Windolme Farm & Smalstig, Inc., Orange, Virginia.

Bulls:

Senior and Grand Champion – Weston Super Surprise, Windholme Farm, Orange, Virginia.

Junior and Reserve Grand Champion – Windholme Approval, Windholme Farm, Orange, Virginia.

SWINE

Champion ribbons in the swine breeds were awarded as follows:

Berkshire–Grand Champion Boar and Grand Champion Sow, Ken Wiley, Victor.

Chester White–Grand Champion Boar and Grand Champion Sow, Roger Shufelt, Wolcott.

Duroc – Grand Champion Boar, Calvin Lazarus & Sons, Whitehall, Pennsylvania; Grand Champion Sow, E. & E. TenEyck, Waterloo.

Hampshire – Grand Champion Boar, Reno Thomas, Beavertown, Pennsylvania; Grand Champion Sow, Terry Bennecoff & Son, Kutztown, Pennsylvania.

Poland China – Grand Champion Boar and Grand Champion Sow, Jason Sholley, Jonestown, Pennsylvania.

Yorkshire – Grand Champion Boar, Reno Thomas, Beavertown, Pennsylvania; Grand Champion Sow, Ralph Bliek, Williamson.

Supreme Champion Boar All Breeds–Calvin Lazarus, Whitehall, Pennsylvania.

Supreme Champion Sow All Breeds – Ralph Bliek, Williamson.

Champion Carcass–Reno Thomas, Beavertown, Pennsylvania.

SHEEP

Exhibitors of champion rams in the various breeds were:

Cheviot – Robert or Edith Kelly, Skowhegan, Maine; Columbia – Clyde Martin, Mt. Morris; Corriedale – Jack Baird, Spencerport; Dorset – Michael Carpenter, Jefferson, Maryland; Hampshire – Sally Austin, Acworth, New Hampshire; Oxford – William Tabor, Cuttingsville, Vermont; Rambouillet – Kenneth Moore,, Nichols; Shropshire – Kenneth Moore, Nichols; Southdown – W. G. Carpenter & Sons, Jefferson, Maryland; Suffolk – Robert and John Whyte, Wrentham, Massachusetts; Tunis – Colleen Fitzpatrick, Wayland.

Exhibitors of champion ewes in the various breeds were:

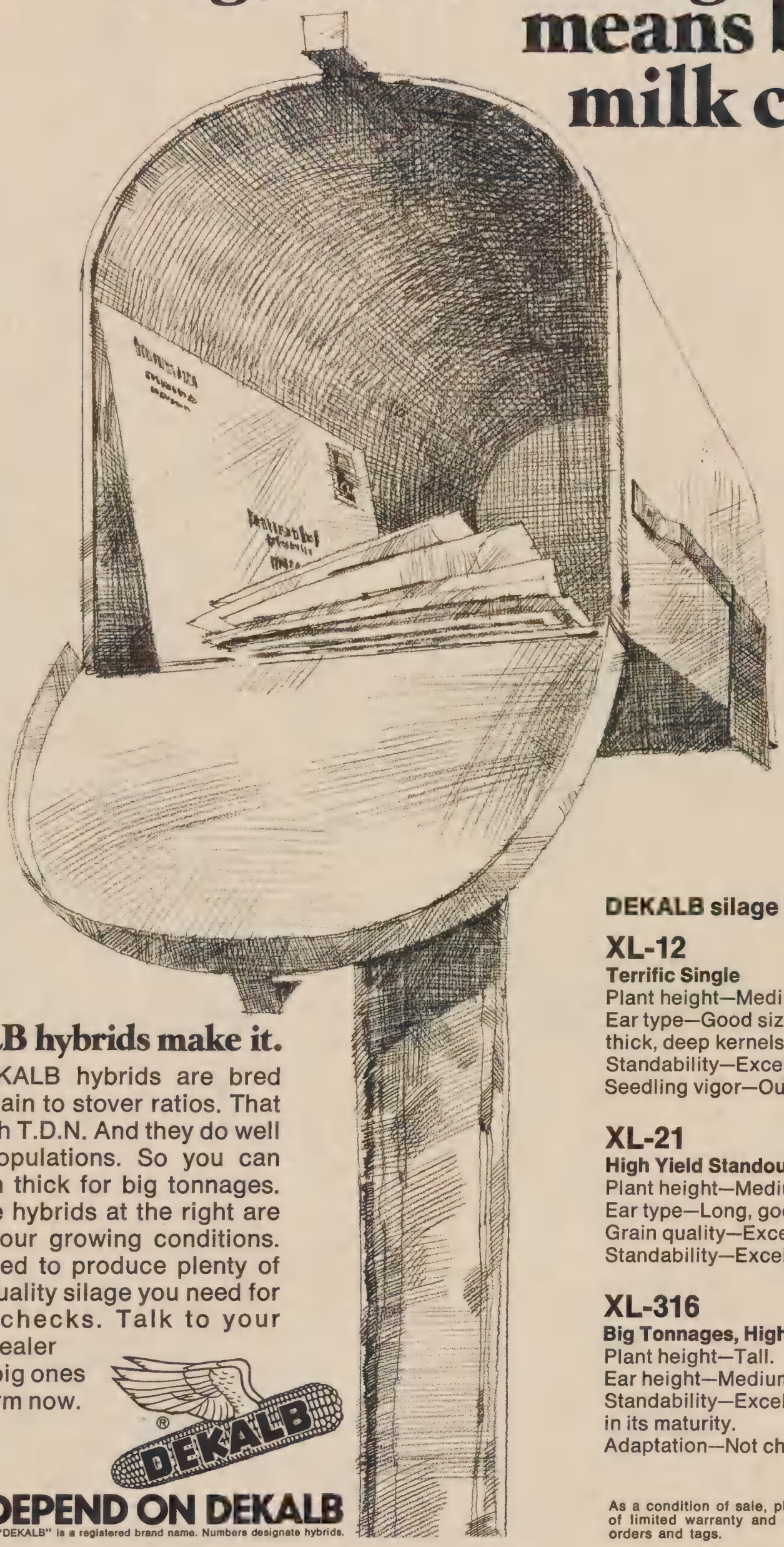
Cheviot – W G Carpenter & Sons, Jefferson, Maryland; Columbia – Clyde Martin, Mt. Morris; Corriedale – Laureen Fitzpatrick, Wayland; Dorset – Michael Carpenter, Jefferson, Maryland; Hampshire – Kenneth Moore, Nichols; Oxford – Glenn Botsford, Scipio Center; Rambouillet – Kenneth Moore, Nichols; Shropshire – Kenneth Moore, Nichols; Southdown – W. G. Carpenter & Sons, Jefferson, Maryland; Suffolk – Robert and John Whyte, Wrentham, Massachusetts; Tunis – Colleen Fitzpatrick, Wayland.

Champion Wether – Daniel Fitzpatrick, Wayland.

Reserve Champion Wether – Ronald Miller, New Lisbon.

Champion Carcass – Kevin Pond, Ithaca.

High T.D.N. silage means bigger milk checks.



DEKALB hybrids make it.

DEKALB hybrids are bred for high grain to stover ratios. That means high T.D.N. And they do well at high populations. So you can plant them thick for big tonnages.

The hybrids at the right are bred for your growing conditions. They're bred to produce plenty of the high-quality silage you need for big milk checks. Talk to your DEKALB dealer about the big ones for your farm now.

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"DEKALB" is a registered brand name. Numbers designate hybrids.

DEKALB silage hybrids

XL-12
Terrific Single
Plant height–Medium-tall.
Ear type–Good size, medium girth; thick, deep kernels.
Standability–Excellent.
Seedling vigor–Outstanding.

XL-21
High Yield Standout
Plant height–Medium.
Ear type–Long, good girth.
Grain quality–Excellent; high test weight.
Standability–Excellent.

XL-316
Big Tonnages, High Grain Silage
Plant height–Tall.
Ear height–Medium.
Standability–Excellent. One of the best in its maturity.
Adaptation–Not choosy about soils.

As a condition of sale, please note statement of limited warranty and remedy on DEKALB orders and tags.

LIVESTOCK

Swamp Fever – A control and eradication program against equine infectious anemia (EIA, swamp fever) is underway in New York State. Agriculture and Markets inspectors are testing thousands of horses each month and freeze-branding the infected ones. A horse that's had EIA is always a carrier.

It's illegal to sell an infected horse, whether it has been branded or not. So before you hand over the cash for the horse you're buying, insist that the seller gives you a certificate showing that the animal has tested negative to a recent immunodiffusion test for swamp fever . . . and make sure the certificate is for the horse being purchased!

Detector – On-the-spot pregnancy detection in sows and ewes is said to be possible with the Centaur Doppler Fetometer, an instrument developed and tested in Great Britain. Compact, portable and easily-operated by a farmer or stockman, the device uses sound signals to detect the fetus of a piglet or lamb and monitor the mother's uterine pulse.

The ultrasonic instrument is used with best results four to five weeks after mating, and pregnancy can often be confirmed within a matter of seconds.

Recycling – Penn State researchers have been creating methane gas from animal manure . . . and using the methane experimentally as a fuel.

They point out that India has 2,500 methane gas generators using animal wastes in digesters . . . mostly in rural villages and on farms.

However, the economics of this type of conversion in the U.S. are not encouraging to its adoption. Who knows, though, with costs of conventional fuel rising, maybe the time of the dung digester is just around the corner!

Eye of the Master – There's little truth in the belief that the conformation of a beef animal can be appraised by the "expert eye." So contends John Crouse of the U.S. Meat Animal Research Center. In tests, live animal scores were made by experienced appraisers who scored the cattle at weaning age and again before they were slaughtered. Their scores on various traits were compared with actual results from the carcass evaluation. Crouse concluded:

- Visual appraisal does not accurately predict feeder calf performance or subsequent carcass merit.
- Slaughter steer quality grades cannot be determined "by eye" on live animals.
- Slaughter steer cutability can be quite accurately determined by visual appraisal in a group of mixed-breed cattle.
- Genetic improvement based on visually-appraised selection will be slow.

Beef organizations apparently agree with this research; the Beef Improvement Federation has removed the section on conformation scoring from its "Guidelines for Uniform Beef Improvement Programs."



Angus bulls and longhorn cows are featured on a new 8-cent postage stamp issued early in October. It's first in a series of stamps that will be issued to honor rural America.



One of the top five junior Angus showmen in North America is Joyce Markeveys of Terryville, Connecticut. Photo: American Angus Association



No other milk replacer beats Blue Seal into solution — or does more to promote growth and feed efficiency. You'll be ready for all the action with this 16-quart pail, with its heavy duty handle and contoured grip, plus our handy whip — *FREE* with every 500 lb. order of Blue Seal Milk Replacer (or the whip alone with every five bags).

Blue Seal Milk Replacer replaces whole milk . . . its antibiotic helps prevent scours . . . you save money. Now, from September 15 through October 31, your Blue Seal Dealer is making this special offer. So order your Blue Seal Milk Replacer today . . . get your pail and whip while the supply lasts.

BLUE SEAL FEEDS
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Doc Mettler comments on:

Mastitis memo



OCTOBER is the time of year I have the most difficulty in deciding what to write about. Most livestock are remarkably free of problems then, and it seems a shame to spoil a fine Indian summer by thinking about preventing winter problems when this **can** wait until November (as long as it's done before deer season).

For a long time, I have thought about an article concerning mastitis, but have found excuses for putting it off because mastitis is a subject most people who work with dairy cattle do not like to talk about.

In August, several hundred dairy farmers, veterinarians, research people, milk industry representatives, sanitarians and fieldmen gathered in Rochester, New York with the idea of not only **talking** about mastitis, but **doing** something about it. The meeting was called by the National Mastitis Council, an organization started about twelve years ago to join together everyone concerned with the milk industry from producer to consumer to not only control, but eventually eradicate this most costly of dairy cattle diseases.

Rather than launch into a long discussion on the subject, I would rather mention a few points brought out at this meeting, both in the formal papers and in private discussions with others:

1. We cannot over-emphasize the cost of mastitis to the dairyman. It's not just in clinical cases, but also in the loss of production from "subclinical" cases in which, though the milk appears normal on a strip cut, the leukocyte count is high and production suffers. Furthermore, with an actual milk shortage in sight . . . and the high cost of producing milk . . . we cannot afford to put grain through cows unless they are producing at a maximum.

2. We know that proper dry-cow treatment and teat dipping is the only really new thing in mastitis prevention in forty years, but federal law restricts the drugs we use in dry-cow treatment (and for all other diseases too) to rather weak, ineffective products.

Securing FDA approval for a new drug (or mixture of drugs) costs pharmaceutical houses hundreds of thousands of dollars. Often, after they have spent this money and proved their point, the quicksand of bureaucracy and false values placed by so-called ecologists cause failure of official acceptance.

Big Question

3. A researcher may not find the answer to the question he is studying, but often another question instead. The biggest general question that bothers researchers (as well as most people who milk cows) is why one man can do everything wrong by today's standards and still make top production of good-quality milk, while his neighbor does everything right and is constantly in trouble with mastitis.

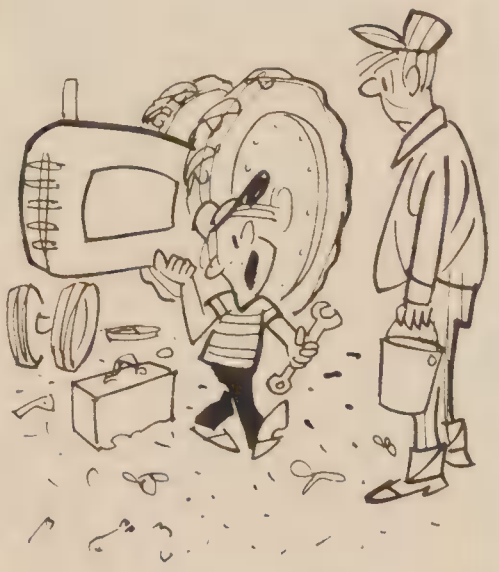
There is certainly a human element that makes an art out of milking. Researchers are trying to find the answer to this so milking can become a science.

4. Studies have been made of immunization against certain types of mastitis. As yet there are too many unanswered questions to say you can call your veterinarian and have him "give the cows a shot to prevent mastitis." However, in certain particular situations where all other known preventions have failed, this may be a help.

5. Work in England indicates that we might be seeing some changes in



FLETCHER THE 4-H'R



"I GOT ALL THE POLLUTION CONTROLS ON MY REBUILT TRACTOR - NOW IF I COULD ONLY FIND ROOM FOR THE MOTOR!"

milking machine design in the next few years. Most important, however, is that day-by-day maintenance of your present installation. A milking machine is a **very** complicated piece of equipment, and any one part that is worn or not functioning can affect the whole system.

The Milking Machine Manufacturers Council several years ago recommended a continual preventive maintenance program. Some companies have started to install hour meters on their equipment to indicate when these preventive measures should be taken. Liner care . . . alternating two sets weekly, and other maintenance . . . was stressed.

Eager

6. In our eagerness to find answers to milking machine problems we have accepted gadgets, or changed one part of a machine to create a desired effect, without considering its effect on the rest of the system or on milk quality and flavor. As an example, one speaker mentioned that a few years ago we found that increased vacuum-pump capacity helped some installations. Now in some cases we have gone too far and have **too much** pump for the diameter of the milk line. He urged further research on this particular problem.

7. Teat dipping, combined with dry-cow treatment, can do wonders to reduce new infections in a herd, but it takes a year to really see the results. Many farmers give up too soon, and others use material not designed as a dip (such as udder wash) and either severely burn the teats or dilute the material so that it is ineffective.

8. Acute coliform mastitis, though not common, is often fatal, and nearly always ruins the cow. Because of this, much research is being done on the subject.

Perhaps a whole article should be devoted to this alone, but I would like to mention here that speakers stressed that coliform mastitis is usually a disease of environment more than a result of the way a cow is milked. It is seldom seen in cows during the pasture season. Today's practices of zero pasture and the resulting overcrowding seems to be connected with higher incidence of the disease.

Sawdust

9. Fresh raw sawdust often carries the Klebsiella organism which causes a serious form of coliform mastitis. If you must use sawdust bedding, it's safer to use after it has been kiln dried. Or use sawdust that has been piled and gone through a "heat."

10. Richard Barie, a New York dairy farmer who milks 700 cows, gave a fine concluding paper at the meeting. He was not afraid to admit that he does experience mastitis in his herd. He said it is a fact of life in the dairy business today and only by recognizing this fact can we learn to live with it.

He hopes that some day he can milk cows without any mastitis, but in the meantime believes he must be on constant guard to keep the disease under control. He said a dairy farmer, to do this, must treat dry cows, dip teats after milking (in his case he sprays because of the large number of cows), house cattle in a clean environment, do the best job of milking he knows how, and keep equipment up to as good a condition as when it was installed. He reminded us that this was a seven-day-a-week job of management, and there are no shortcuts to mastitis control.

My own conclusion on this subject is that in New York, Connecticut and Massachusetts we have state mastitis control programs that are successful. Though some may not admit it, anyone who has been involved in the dairy business for the past thirty years should notice that there is certainly far less mastitis today than there was before these programs started.

In New York State, we have had the mastitis control program so long that we take it for granted, and until the East Aurora Laboratory was eliminated in the spring of 1971, perhaps we did not fully appreciate it. Nearly 30 percent of the dairy cattle in New York State are without a nearby mastitis laboratory. Surveys are being done by a particularly talented and devoted technician driving all the way from Ithaca.

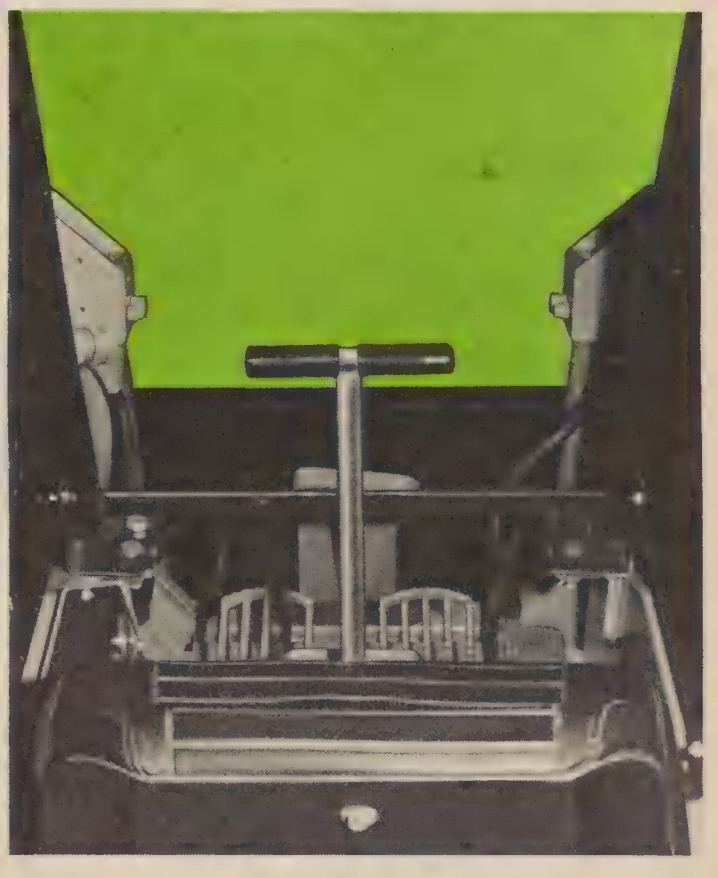
It seems a waste to have a skilled man spend six or eight hours a day driving to do two hours of work in the field. This problem can be solved by reopening the laboratory in Western New York, and plans are underway to do so. It will take action and money from the New York State legislature to implement these plans, however.

If you are a dairy farmer, or concerned with the dairy business in Western New York, communication with your state representatives in the legislature would help a great deal toward reopening this important laboratory. The cost would be about $43,000 annually. Considering the fact that there are nearly 200,000 dairy cows in the area, this is a small expenditure.

More important to the state as a whole, milk . . . like all food . . . is in short supply and nothing does more to decrease the supply and increase the cost of milk than mastitis. If our legislators are made aware of this, I am sure they will consider the cost of the reinstated laboratory a profit-making investment.

Clean-up · Loading · Digging · You name it







Owatonna's 330 Mustang takes the chores out of farming

Manure removal from feedlot or confinement housing. Digging post holes. Grading. Moving snow. The 330 Mustang handles these and other chores like a work horse to save you time and money.

Designed as a compact to operate in tight quarters (even fits into a pick-up truck), but with the strength you need for tough jobs and long service. Hydrostatic drive for smooth, instant power. T-Bar steering gives you one-hand control over speed changes, for forward, reverse and effortless turns. Four-wheel drive, 25 hp. engine, tip-up rating of 1600 lbs. and a dumping height of 87 inches.

Take the chores out of farming. Take a look at the 330 Mustang, one of six skid-steer and articulated loaders from Owatonna.



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Please send me full details on your Mustang:

☐ 330 ☐ 1200 ☐ 440 ☐ 1700 ☐ 770 ☐ 880

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Company _____

Address _____

City _____ State _____ Zip _____

County _____

☐ Student. Please send special literature. AA1-73

FRUIT



Rent-A-Tree — Faced with the typical labor shortage in his fruit-growing operation, Edward (Bud) Hendershot of Hilton, New York, formed the "How Do You Like Them Apples Company" and launched a tree-leasing program in part of his orchard this year. Bud agreed to do the pruning, spraying and weed-mowing, the lessees would harvest the apples.

Rate was $21.95 per tree, a figure based on the on-farm price per bushel over the past few years, multiplied by 20, which was the number of bushels a tree might be expected to bear. If the tree didn't bear apples, the lessee was assigned another one that did. Trees were numbered for identification, but folks could trade trees, or if they wished, could split the harvest.

Mrs. Hendershot reports no problems with the program during the summer, and wasn't anticipating any particular harvest-time headaches. Some 700 trees were leased . . . not as many as Bud had hoped, but enough to provide seed for thought about repeating the project next year.

Certified — New Jersey's certified roadside markets are those that consistently sell only farm-fresh local produce, and measure up favorably in regular evaluations for cleanliness and truth in labeling and packaging. A list of Certified Farm Markets in the Garden State can be obtained by writing to: Division of Markets, Department of Agriculture, P. O. Box 1888, Trenton, New Jersey 08625.

Quinte — A new variety of summer apple reported to be superior to other early apples for both eating and cooking appeared on commercial markets for the first time this year. The new apple is Quinte, developed by Canadian researchers and named for a bay on the northern shore of Lake Ontario.

Quinte is the only summer apple that's an attractive bright red. Growers predict the new variety will be important commercially in ten years . . . less than a third of the time it usually takes for a new apple to win consumer acceptance.



Machinery management

HARDLY a day passes but what we hear or read reports about the "energy crisis" . . . and accompanying reports concerning possible fuel shortages for farm tractors.

It's **always** been a good idea to conserve fuel, because fuel costs money. Good farm management practices have always paid off, and taking it easy on the fuel tank is no exception.

However, recent publicity about the energy shortage provides a special incentive to do a good job of managing power requirements. Here are some possibilities:

1. It just doesn't make sense to use a 100-horsepower tractor to pull a weed sprayer. A small tractor can do that job very nicely . . . and with a whole lot greater efficiency in fuel use. Match the power supply to the power requirement of the job.

2. PTO-operated machines need to be used in good adjustment in order to conserve power. One of the biggest demanders of power is a field chopper . . . and it really makes a tractor snort if its knives are not sharp. Sharp knives . . . plus proper shear-bar adjustment are important. Forages need to be cut reasonably fine in order to pack well, but nevertheless they should be cut as coarse as practical, and thereby reduce power requirements as compared to pulverizing them.

3. Storing fuel in below-ground tanks sharply reduces its evaporation as compared to above-ground tanks. If above-ground tanks are used, they should be painted white and shaded, as well as equipped with a pressure-vent cap. As much as three percent of the fuel stored in an unshaded tank can be evaporated.

4. Engines that are well-tuned use a lot less fuel. This involves the proper fuel-air ratio, correct timing, good plugs, and a clean cooling system.

5. Tillage practices can be rejiggered to conserve fuel. Minimum tillage has become a way of life for a great many farmers, and this has reduced fuel needs when compared to the traditional method of "five" times over the ground." Plowing shallower can also do the same thing . . . plowing more than 7 inches deep generally does nothing to improve crop yields, but it sure demands a great deal of the engine!

6. Fuel costs represent about 30 percent of the total machinery operating expense on most farms in the Northeast so there is plenty of room for saving a shekel or so in this business of using fuel more efficiently.



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Good business to plant hybrids for grain and silage that complement your corn growing know-how—your choice of row spacing, population, fertility, chemicals.

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We Are Proud To Be A Part Of American Agriculture



Plans – Republic Steel Corporation, P. O. Box 6778, Cleveland, Ohio 44101, has a series of plan books available . . . utility building (40 feet wide); freestall dairy barn (112 stalls); broiler house (34 feet wide); swine finishing building (28 feet wide); beef confinement structure; laying house (40 feet wide); and shop building (30×32 feet).

Dairy Waste – Solid-waste separators are in use on several large dairy operations in California, where pollution control has made manure disposal a matter of prime importance. One of the most recent innovations in manure handling, the solid-waste separator removes solid matter from effluent discharged from barns and corrals. The solid matter . . . low in nutrients and salts . . . is collected and sold as organic mulch. The liquid, which is high in nitrogen, is used for irrigating pasture, alfalfa and silage corn.

Booklet – A new 24-page booklet, "Products and Services for the Beef Industry," contains stories and photographs of various uses of all-steel barns and feedlot facilities. It is available without cost by writing to the Advertising Department, Butler Manufacturing Company, 7400 East 13, Kansas City, Missouri 46126.

Concrete Facts – A new "Cement and Concrete Reference Catalog" describes all technical and semi-technical literature and computer programs for sale by the Portland Cement Association to the engineering and construction professions, schools and universities, allied industries, and the general public.

Single copies of the 39-page catalog may be obtained free from: Order Processing Department, Portland Cement Association, Old Orchard Road, Skokie, Illinois 60076.

Handbook – The 1973 edition of the Midwest Plan Service "Structures and Environment Handbook" is now available. It is not a publication for everyone, since much of the information is too technical, but most of the book is geared for the vo-ag student. Information ranges from waste disposal facilities to beam formulas for farm buildings.

The 350-page handbook can be purchased for $5 by sending to: Midwest Plan Service, Agricultural Engineering, Iowa State University, Ames, Iowa 50010.

Chicken Chalet – The Kitson Poultry Equipment Company of Morley, Michigan has introduced the chalet concept in housing for layers. It departs from more traditional housing in that it incorporates smaller numbers of birds per house. Houses range from the 8,000-bird house to the 20,000-bird house. Houses are long and narrow, with all birds on one level for easy ventilation with 30-inch direct-drive fans.

Something like a giant erector set, the chalet house has a tubular steel frame which has been dipped in enamel with special clips for nails and bolts as well as egg belt guides and cable guides already welded in place. Special frames are provided for ends of buildings.

Some advantages claimed for this concept in layer housing are: reduced possibility of disease spreading to all birds owned; more chance of filling a whole house with pullets all raised in one house; and more flexibility in maintaining a uniform flow of eggs of varying sizes throughout the year when a complex of chalets is owned.

The Kitson people say the building will cost about $2.50 per bird, depending on local labor conditions and material costs. The house can be built either as a high-rise, or for use with manure-cleaning equipment for daily removal.



The chalet adapts well to the deep pit. The package includes a built-in rat barrier.

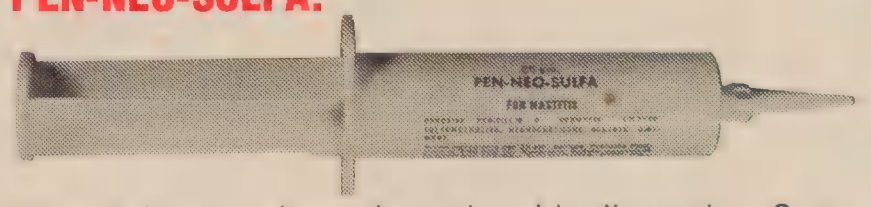
When it comes to mastitis, the only thing dairymen agree on is that they want to clear it up fast.

So Anchor gives you six different ways to do it.

Some men swear by a giant syringe—some want a small one. Some want economy first. More and more ask for a special dry cow formula.

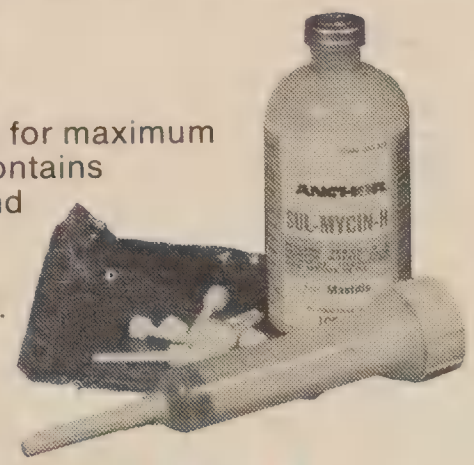
Anchor doesn't try to tell you any one approach is right for everyone. That's why there are six good mastitis treatments which carry the Anchor label. Whichever way you go, you know Anchor quality and reliability is behind your choice.

PEN-NEO-SULFA.*



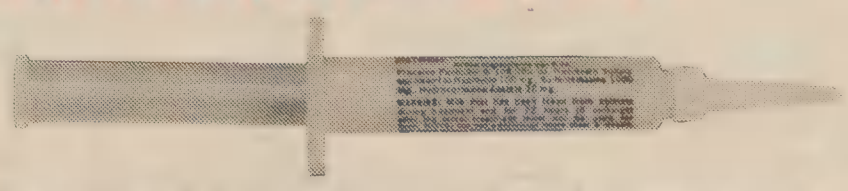
Newest. Large volume dose gives big dispersion. Special base keeps infection fighting team working—and, where it's most needed.

SUL-MYCIN H.*



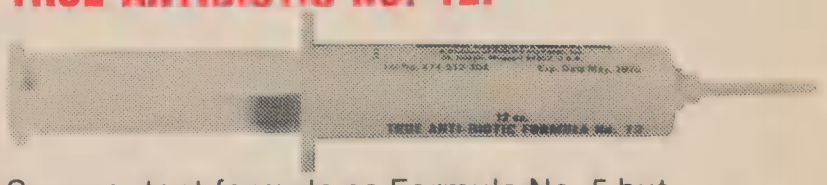
Ten doses in one bottle for maximum economy. Each dose contains neomycin, penicillin and sulfamethazine plus anti-inflammatory hydrocortisone acetate. Available with and without disposable syringe.

TRUE ANTIBIOTIC FORMULA NO. 5.*



Four powerful ingredients for broad-coverage mastitis treatment.

TRUE ANTIBIOTIC NO. 12.*



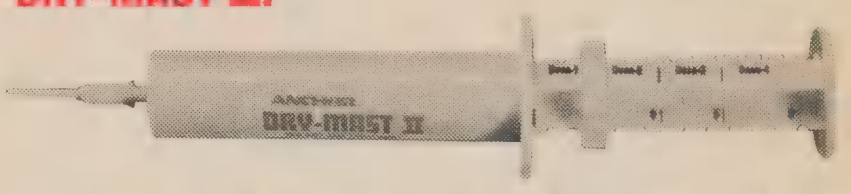
Same potent formula as Formula No. 5 but double the volume for each quarter.

MASTI-MATIC.*



A bellows-type dispenser for easy use. Contains active ingredients in Formula No. 12, but in twice the dose volume.

DRY-MAST II.



Helps prevent flare-ups on freshening. For economy, four doses in one graduated syringe. Canula furnished for each dose. Available with or without syringe.

WARNING: FOR USE IN DRY COWS ONLY. Infuse no later than 4 weeks prior to calving. Milk taken from animals within 96 hours (8 milkings) after calving must not be used for food. Animals infused with this product must not be slaughtered for food from time of infusion to 96 hours after calving.

*__WARNING:__ Milk that has been taken from animals during treatment and for 72 hours (6 milkings) after the latest treatment must not be used for food. In those rare cases of unfavorable response, general systemic treatment may be required. Consult a veterinarian.

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What's NEW in the FIELD



By Dr. Bill Pardee

HIGH-MOISTURE CORN

HIGH-moisture corn has become an increasingly popular feed on Northeast dairy farms. And it will continue to expand in use as farmers grow more of their own grain to replace high-cost purchased feeds. And this month will see lots of it go into storage as Northeast farmers harvest their biggest corn acreage in many years.

To help in your planning, we've pulled together facts and pointers on handling high-moisture corn, drawn from ag college trials and from farmer experience.

First off, high-moisture corn makes good dairy feed. That's the conclusion of researchers in many parts of the country. In test after test high-moisture corn, containing from 22 to 36-percent moisture shows up equal to dry shelled grain in dairy rations, and beats the drier stuff for fattening beef. Farmer experience also rates this feedstuff high as more and more farmers try it and like it in their feeding programs.

Handling

So the big question on high-moisture corn is no longer how good it is. Now we're focusing on ways to harvest, store and feed wet grain without spoilage. If poorly handled, a bin, bunk or pile of high-moisture corn can heat and spoil in short order.

Most interest focuses on two basic storage principles, one old, one new. You can store high-moisture corn in a good, tight silo, as many farmers do. Or you can treat your corn with one of the new organic acids and pile it on the barn floor or in any dry place. There are pros and cons for each, and tricks for making each work.

For starters, let's define high-moisture corn, since the term could conceivably mean anything from 15-percent moisture up to stuff wet enough to pour from a jug! For this discussion we'll limit the term to corn that's between 22 and 36-percent moisture, and include both shelled grain and ground ear corn.

Mature

Let's stress one point . . . this isn't immature corn. It's mature corn that just hasn't finished drying down. Most corn hybrids are physiologically mature at about 35-percent moisture, and have packed all the dry matter into the grain they're going to. The only action to follow is loss of water to the outside air, a straight drying process.

From 35 percent on down, corn normally loses an average of about one-half percent per day of moisture. You can use that in your planning, but note that it is an average figure. Corn in the field may dry a full percentage point on a warm, dry October day. But plug in a day of rain or wet weather and it may not dry at all. Make that a week or two of rain and it may actually gain moisture, as most of us found out last fall.

It's important to know your corn moisture when you're harvesting, particularly if you're close to being too dry or too wet for good storage. If it's high-moisture shelled corn you're after, 26 to 28 percent moisture is ideal. You can stretch some either way, but above 32 percent you'll get poor shelling and smash up lots of soft kernels. Below 24 percent you'll get poor fermentation in your silo and risk spoilage.

Cobs

If you're grinding up cob and all, be sure to figure in cob moisture, since this runs 10 percent higher than the kernels, and cobs make up nearly 20 percent of the dry ear weight. Best harvest moisture for ground ear corn, including grain and cob, is 30-34 percent. Here you'll get your lowest field losses and use less horsepower. Figure your top level at 38-percent moisture and the bottom at 24 percent. In air-tight or sealed silos you can safely go a touch lower, to about 22 percent in moisture.

Feed out high-moisture corn regularly to avoid surface spoilage in your silo. Plan on removing at least an inch of grain per day in cold weather. Summer heat speeds up spoilage so plan to remove at least 2 inches per day of ground ear corn, or 2½ to 3 inches of unground shelled corn.

Once out of the silo, high-moisture corn will heat and mold quickly. Give livestock only what they will clean up in a few hours or you'll have moldy corn in your bunks.

Organic acids are now available to preserve high-moisture corn. Wet grain treated with organic acids can be stored without spoilage on a dry barn floor, in open bins, or in any other dry place. It also makes good feed, equaling other forms of high-moisture corn in feeding trials and in on-farm performance.

The principle is as simple as pickling a jar of cucumbers and acts the same way. Organic acids kill off fungi and bacteria living on and in the grain, then prevent outside organisms from getting in. Products now on the market are based on propionic acid, either by itself or in mixture with acetic acid.

Both farmers and researchers who have tried organic acids are enthusiastic. Dr. John Miller, Cornell livestock specialist, has successfully treated corn up to 40 percent in moisture and stored it in open bins without spoilage for up to two years. Last fall, several hundred Northeast farmers tried these materials for the first time. Nearly all were pleased and most plan to expand their use.

Cost Advantages

Costs for treating are similar to those involved in drying grain. However, equipment for acid treatment is cheaper then dryers. And acid treatment can be handier than custom drying since you can process your corn right at the barn as you harvest it.

Biggest advantages of acid treatment are its flexibility and the reduced cost for storage structures. You can store acid-treated corn on a barn floor or in wooden bins so long as you protect it from rain, snow and water seepage. You also have greater flexibility in feeding, since you don't have to take off 1-2 inches per day to avoid spoilage, as you may in silo storage of untreated corn.

Even so, long-range economics may favor permanent structures over acid treatment. Figuring over 10 years or more, you may be ahead to build permanent grain storage and let your corn pickle itself, as it does in normal fermentation. Silos also may tie in better with automatic feeding equipment. Overall, they may pay better in the long run.

But the short-run cost advantage is definitely with organic acids. The low startup costs also permit you to be an "in and outer," and to vary your storage from year to year, depending on how much corn you wish to store.

Acids on the market include propionic acid by itself and a mixture of propionic and acetic acid. Propionic acid is a better fungicide than acetic, while acetic acid is better for killing bacteria. Though somewhat less effective overall, acetic acid is lower in cost. Therefore, mixtures high in acetic can be cheaper than straight propionic, but you must use more of them per bushel or per ton. Prices for products on the market this fall will range around 25 cents per pound (or $2.00 per gallon).

Treating equipment is available from the companies that sell organic acids. They will have treaters for sale or lease this fall. Your best option may be to rent or lease equipment this year, to see how the practice works for you.

Treating the corn successfully isn't difficult, but you will need to pay some attention to detail. All kernels must be covered **thoroughly** with acid or you will get spoilage.

Treatment rates depend on grain moisture and length of storage planned. The wetter the grain, the more acid you'll need. The same is true with time . . . with a small amount of acid enough for a couple of months, but more needed to keep it a year. Treat on the high-rate side the first time to be safe. Most farmers have had good luck, but where troubles have developed it's usually from treating too lightly.

Handbooks come with the applicators to give adjustment instructions, but you'll need to measure both your grain moisture and the rate of flow through your applicator yourself.

It's most important to start with an **accurate moisture reading on your grain.** If you don't have your own moisture meter, it may pay you to get one. Don't guess, because a mistake can result in undertreatment and spoiled grain.

The rate grain passes through your machine is something else you'll need to know. This can vary from day to day depending on the moisture of the corn, size of kernels and rate of acid application.

Here's a quick way to figure this "flow-through" rate. First, start your grain moving through the applicator, treating corn as it goes. Start by putting through a known quantity of grain, say 100 pounds. Check the time in seconds that it takes to go through. You can then determine the "through-put" in tons per hour by the following formula, using T for the time in seconds it took to treat the 100 pounds of grain: Tons per hour = 180 ÷ T. Thus, if it took 60 seconds to run through 100 pounds, then you're moving three tons per hour.

Simple

Once you know the tons per hour, and your grain moisture level, it's a simple matter to find your treatment rate on tables that come with your treater.

Treatment rates for high-moisture ground ear corn can be figured the same way. Just measure the moisture, figure your through-put, then check your table. Ground ear corn will be several percent wetter then shelled corn, since the cob carries more moisture.

Treatment rates will vary from 2.4 gallons per ton of corn at 22-percent moisture up to 4.8 per ton at 40-percent moisture. Since the acid

(Continued on page 30)



The bell atop the home of Kenneth and Ruby Coye of Smyrna (Chenango County), New York, has pealed at the end of six wars . . . Civil War, Spanish-American, World War I, World War II, Korean, and American involvement in Viet Nam. More than 110 years old, the bell is similar to those found at many rural homes across the Northeast.

8½ ton load!

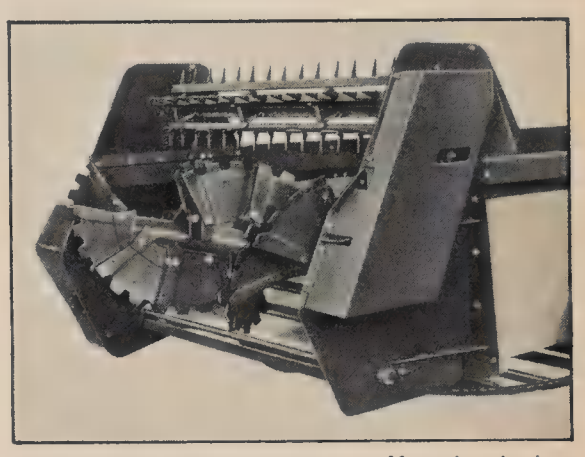


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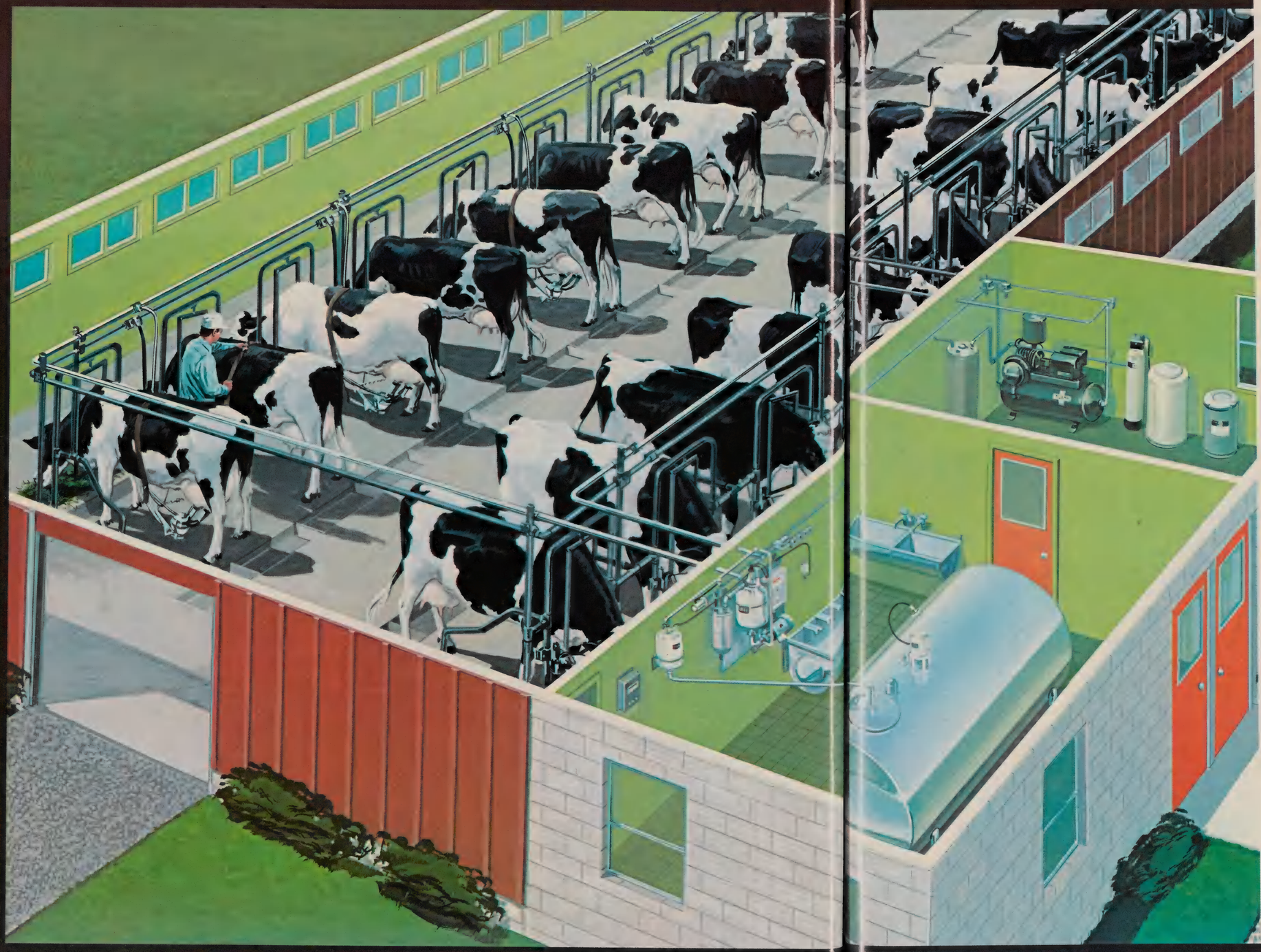
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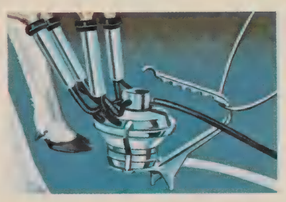




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Your Surge dealer and his personnel have completed hundreds of hours of training aimed at making sure your system is installed properly. And, since they all live in your community, they'll be around to make sure everything goes according to plan.



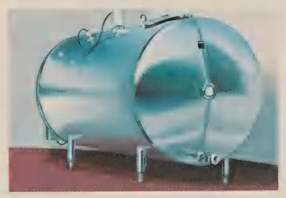
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To protect your milk and help you market the best product, Surge provides a complete line of farm tanks, pre-coolers and ice builders to meet the specific needs of your dairy.



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Your Surge dealer offers preventative maintenance to keep your milking system performing at maximum efficiency. Results: Reliable, sustained high performance that keeps labor costs down and profit per man hour up.

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Corn . . . . .

(Continued from page 26)

will cost roughly $2.00 per gallon this will put acid cost at $4.80-$9.60 per ton of grain.

When treating, it's important to treat **all** the grain. Untreated pockets will heat and spoil. Don't let the applicator run out of chemical or the corn move through erratically since both will result in untreated and spoiled corn.

Corrosion

Propionic and acetic acids are corrosive to metals, so don't store treated corn in galvanized bins unless they are lined with polyethylene plastic or rubber acetate paint. Also cover metal posts or other metal items that will come in contact with the corn. Wood isn't harmed by the acid so planks, plywood or other wooden materials make good bin sides.

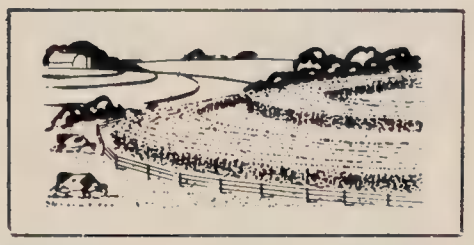
Keep moisture out, no matter what the structure. Rain, snow or water from any source will dilute the acid, wash it off the kernels and permit spoilage. Check windows and walls to be sure they are watertight. Concrete floors are porous and moisture can seep up through them. Cover them with plastic sheets before putting in corn.

Grain treated with propionic acid reaches a pH (acidity) level of about 4.0. This is about the same acidity we normally find in untreated high-moisture corn or in corn silage. So we don't expect acid-treated corn to have any greater effect on feeding equipment than would these other feeds.

These chemicals are safe to use, providing you take reasonable care in handling them. However, organic acids can be irritating to eyes and skin. Apply them outdoors or in a well-ventilated area. Best bet is treat the corn outside, then run it into a storage area. Don't get the liquid or vapor in your eyes, skin or clothes. Like most acids, these can eat holes in your clothes, and burn your hide. Have water available to wash spills off your skin immediately. Small amounts of chemical won't make serious burns, but can be darned uncomfortable.

Acid treatment works fine for corn for home feeding. It may have less value in corn for sale. At present, there is no market for acid-treated corn through normal grain merchandizing channels. If you plan to sell your corn, be sure you have a market before treating. Otherwise, you may be better off to handle it in some other manner.

All in all, high-moisture corn is a good feed, so long as you store it well. Fixed storage structures are one possibility, organic acid treatment is another. Either way, it's a product we'll hear lots more about



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The tree shaker has revolutionized fruit harvest at Agpro Farms. Allan Mitchell and son Jim prepare it for another season.

Ethrel at Agpro

AGPRO FARMS, a 500-acre fruit farm near North Rose (Wayne County), New York, is facing the same problem most fruit-growing operations are facing this year . . . a diminishing labor force.

A FEW years ago, Allan Mitchell and his partner, Lee Fisher, could count on about 30 seasonal workers at harvest, but this season they'll be trying to harvest the same amount of fruit with only half the labor. And with their apples, sweet and sour cherries spread out over five different farms, getting the fruit off the tree could be a big problem.

One of their first steps to beating the labor shortage was to move to an almost entirely mechanical harvest.

As Allen puts it, "Where we used to have 30 migrants, we had only 17 last year and we'll be lucky to have 15 this year. The supply of workers just started drying up . . . some retiring, and some not making the trip from Florida. All of a sudden, we started losing them, and that's how we really became involved in mechanical harvesting."

With a Model C Perry harvester equipped with a trunk and two limb shakers, they mechanically harvested all their cherries, tart and sweet, and plan to mechanically harvest at least half their apples.

Sweets Too

In previous years, Allan and Lee have mechanically harvested apples and tart cherries, but last year was the first time they mechanically harvested sweet cherries with any success. Allan attributes this to a new plant regulator which he caught wind of early last year.

Although the plant regulator, Ethrel, was only experimentally labeled last season, it is fully labeled by the Environmental Protection Agency for grower use this season on apples and tart or sweet cherries. Allan used it across the board on his sweets this season.

As he puts it, "It's a must for mechanical harvest on sweet cherries. It worked very well for us . . . they really came off."

Ethrel promotes formation of the abscission layer between stem and fruit, and allows the cherry (tart or sweet) to fall with less effort. Allan feels that by "block treating" with the plant regulator he will be able to move from block to block, orchard to orchard, and farm to farm in an orderly, scheduled sequence and eliminate costly wasted motion.

Shakers

A big aid at apple harvest is their new shaker. "Our limb shakers this season have a longer stroke and lower frequency which I hope will help get 'em down." Another time-saving idea Allan and Lee are experimenting with is harvesting their processing fruit into trucks and hauling the fruit in bulk to the processor.

Spacing out the varieties by maturity dates is another management key to successful apple harvest for the owners of Agpro. They grow apples for both fresh market and processing. Fresh apples include: Red Delicious, Early McIntosh, Cortlands, Rome Beauties and McIntosh. Their process apples include: McIntosh, Greening, Cortland, Spy, Monroe, Idared, Ben Davis and Romes.

Allan says, "Once we get started at harvest, we move from variety to variety and they're about ready when we hit 'em. But we'd like to get started a little earlier for the fresh fruit market.

"We tried some Ethrel last year on some that we wanted for fresh market and it sure put the color to them. But we also want to try some for an earlier process crop. That'll be an advantage to the processor too . . . it'll lengthen his season while at the same time let us get an earlier start."

In previous years, Allan remembers, "We always get a little custom-harvesting on cherries, but usually by the time we finish up our apples, nearly everyone else is also finished." But if he can get his apple crop off the trees a little earlier, he'll have more time to cash in with his custom-harvesting operation.

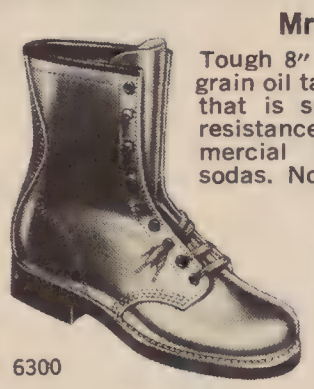


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A stop at the farm to ask permission before hunting generates good feeling and decreases the likelihood of bad experiences that lead to posting.

The great poster propagation

by Earl Ainsworth

EVER hear the lament of the guy who just can't find time to get away to hunt or fish? Next time you see him, tell him maybe he had better start looking for a **place** as well as the time. According to Tom Brown, research associate at Cornell's Department of Natural Resources, **all** private lands in New York State will be posted by 1993 . . . if the number of acres posted continues to increase in the future as fast as it has in the past.

The figures are impressive. In 1963, 5.5 million acres of land were posted in New York State. By the end of this year, 9.2 million acres are expected to be posted. Forty-two percent of the private lands in New York are now posted with more than 588,000 acres of choice hunting, fishing, and other recreational lands newly posted just last year. We have had a whopping 67-percent increase in land posted during the last ten years!

Reasons

Last fall, Tom Brown undertook a survey of landowners to get at some reasons and attitudes regarding the posting dilemma. Recently-compiled data indicate, ironically, that landowners aren't so much at fault for the rise in posting as the sportsmen themselves.

As reasons for posting, 55 percent of the owners said it was because they have had a bad experience with sportsmen and another 20 percent mentioned as a reason that a friend or neighbor has had a bad experience. Other reasons given for posting were desire for privacy, land use that would conflict with recreation, and fear of liability, but those posting for these reasons comprised only about one quarter of the total. Motivation for posting is evidenced by the strong correlation between bad experiences between landowners and sportsmen and the resultant posting by the landowners.

"Well over half of the bad experiences have occurred with hunters," Tom points out, "while around a quarter of the bad experiences were credited to snowmobilers and the rest to persons engaged in other outdoor activities." Fishermen accounted for considerably less than ten percent of the bad sportsman-landowner experiences.

Tom's survey included some landowner attitudes about outdoor recreation on private lands that unmistakably clash with their present posting policy. We might think that those landowners who don't approve of hunting or snowmobiling are the ones who post. This is not the case. Of the landowners who post, 76 percent approve of hunting and of those who do not post, 79 percent approve. Snowmobiling is considerably less popular with both groups of landowners, but about the same similarity in attitude prevails between those who post and those who do not.

The crux of the problem lies in the attitude of the landowners toward the behavior of those engaged in the activity. Of the landowners who post, 71 percent said they thought hunters are irresponsible and of those who do not post, only 26 percent believed hunters are irresponsible.

Snowmobilers fared only slightly better with a breakdown of 65 and 44 percent respectively. It's analogous to the fellow who was asked, "How's the world treating you?" "World's okay, it's the people in it that give me trouble."

Farmers

Do farmers differ from other landowners in their habits and attitudes concerning posting? According to Tom, 38 percent of the farmers in New York State post their land; a figure somewhat less than that for landowners as a whole. Yet 90 percent of the farmers sampled thought hunting is all right so long as hunters respect private property and take only legal amounts of game. Some 22 percent more farmers than other landowners approve of hunting when done wisely.

Farmers and landowners as a whole run close to the same in attitudes on snowmobiling. If anything, farmers are more tolerant of recreational use of their land than other landowners. Nonetheless, that inescapable disparity exists between attitudes and practice. Farmers seem to have nothing against outdoor recreation, but like the guy who had no quarrel with the world, many have encountered troubles with those **engaged** in the recreation.

Will the year 1993 see the final consummation of the great poster propagation? The answer to that question, in the final analysis, rests with the sportsmen. There are those who will argue that leasing of posted land by hunting or snowmobiling or fishing clubs is the answer just as there are those who will argue that public lands can accommodate those sportsmen who don't own open land. Most any viewpoint has its merits and its drawbacks.

Whatever the answer, the posting phenomenon is now better understood and with this understanding comes a message that perhaps outdoor recreation is not so much an inalienable right as it is a privilege . . . one that ought to be protected.

ONE MAN'S EXPERIENCE

"What do you mean I can't hunt here? I been huntin' here for years. You know me."

"I know," I said to the visitor, "but you see I leased the land out for hunting . . . can't let anybody else hunt here anymore."

"Well," he replied, "what the heck did you do a thing like that for? You don't own the game, and you shouldn't keep people from hunting it."

Oh, I know I don't own the game, but you see we live right next to all this state land and the deer are a terrible nuisance. They eat the crops and the state won't pay damages — think they ought to out of license fees. Anyway, this land's the best deer hunting in the state.

Last August, I was ready to combine oats when a car stopped. It had several fellows in it — they had hunted this land before. Well, they talked a while and bought some eggs from the wife and finally got around to asking whether or not I'd consider selling the place. I told them right off I thought not. After all, I've lived here most of 50 years.

I asked them what they would do with the place if they did buy it. They said just use it to hunt on, camp, and run snowmobiles. Gosh, I couldn't believe it — just the interest on the land would cost $2,000 to $2,500 a year. The taxes would be another $300 to $400.

They said that there were actually ten of them in the group and that it wouldn't cost more than $300 a year apiece and they were willing to pay that.

We talked about the weather, crops and such for a while and then I finally asked if they would consider renting my land from October to January. They said they would if the price was right . . . and so they're renting the land for taxes. I figure now I'll know who's on the place . . . and the deer are finally beginning to pay their way.

"Old man, you didn't have the right to do what you did," exclaimed my visitor. "What's the world coming to when a man can't do what he wants to anymore!" — Name withheld by request. Allegany County, New York.

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45-hp John Deere 1530	5,467	121
52-hp Competitor	6,621	127
52-hp Competitor	6,299	121
60-hp John Deere 2030	6,542	109
63-hp Competitor	7,190	114
70-hp John Deere 2630	7,400	106
67-hp Competitor	7,468	111

*Competitive price comparisons are based on field-ready diesel models. Prices quoted are the manufacturer's suggested retail list prices, F.O.B. factory, believed to be current at the time this advertisement was produced.





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Farming's split personalities

by Earl Ainsworth

PUT a dime in the middle of a map of New York State and you've covered the homes of two world champion snowmobile riders. You have also covered two prominent Northeast dairy farms.

Dairyman Ken Young of Skaneateles, and dairyman Jon Nedrow's wife, Kathy, of Lansing, are about the best snowmobilers that ever milked a cow.

About two miles west of Mandana on the shore of Skaneateles Lake sprawls the 900-acre, 240-head dairy operation owned by Ken Young, his wife Georgienna, and their five children.

One of six brothers who are all farmers, Ken started out on his farm in 1960. He runs a conventional stanchion operation with 120 milking cows and feeds hay and corn silage.

World Series

Clad in T-shirt and polka dot hat, Ken is hard to single out from any other farmer you'd see in the fields. But if you had been in Rhinelander, Wisconsin in the winter of '70, or in Ironwood, Michigan in the winter of '72, you couldn't have missed him; he won the men's modified competition at the world series snowmobile racing championships both years.



Ken Young

Since Ken is the only non-factory-sponsored rider ever to win this particular championship twice, his name is spoken with reverence in snowmobile-racing circles.

"I was about the first person around here to have a snow machine," Ken recalls. "I went to a few 'backyard' races a few years ago and got interested." From there, he went into United States Snowmobile Association (USSA)-sanctioned racing as an independent driver. It wasn't long before he was first in the east in the modified classes. Aboard Arctic Cats, he has terrorized the factory-hired riders ever since.

It's not as easy as it sounds. "I got dumped in Bangor, Maine," he explains, "going sixty and the guy that ran into me was doing sixty too." Ken was lucky and came out of it with only a cracked pelvis.

Two other factors that discourage many riders are the long distances they must travel and the ticklish business of mechanics. Ken travels to races about every weekend during racing seasons . . . many of them a considerable drive from his farm. It isn't uncommon to leave Friday night and come home Sunday night. (And there's always the problem for drivers like Ken of transporting those big trophies back home.)

As for the mechanics, Ken is the first to emphasize the need for a skilled pit crew. Winning isn't all a matter of driving skill; a sizable portion of it is due to the backup people. Seemingly small mechanical adjustments can give that extra spurt that spells victory.

Ken's racing achievements are too numerous to list, but a good indicator of his success is the room in his house that contains no less than 150 racing trophies anywhere from one to five feet tall.

Not one to confine himself to a single activity, Ken has done some motocross and enduro racing – both forms of motorcycle competition. "You don't average high speeds racing motorcycles," confides Ken, "but it's hard work and you've really got to be in good shape."

Southwest of Ken's farm is the 160-cow dairy owned by brothers Bill and Jon Nedrow of Lansing. Jon's pretty wife, Kathy, is a world champion snowmobile racer who knows her farming just as well as she does her snowmobiles. Her specialty, besides raising three children and snowmobiling, is raising calves and young stock.

"It started out as a hobby," she says, referring to snowmobiling, "but now it's more of a business." It didn't take her long to get in business! Her first year of racing, she placed second in the women's stock class at the world series in Boonville, New York, and set a record for speed in the women's modified class in the one-eighth-mile grass drag races. Kathy exceeded 63 miles per hour in nine and a half seconds.

That was just the first year. Her second season, 1972, she won the world series championship at Ironwood, Michigan in the women's stock, and captured fifth in the modified class. That year, she was number one in the east for almost every women's class, and came in first in three classes at the northeastern United States championships in Malone, New York. Kathy was unmatched by any other rider that year as she, like Ken, took one race after another.



Ken Young racing in the modified class at Boonville, New York this February. Photo: Nero Equipment Company.

But again, it's not all that easy. Husband Jon, who has himself raced, is a major member of Kathy's pit crew. He makes sure the machine is handling right . . . a job that is frustrating, because it varies with the course and conditions. Neighbor Herb Robinson, himself a racer and dealer, does engine work.

Does she get scared? "No," she beams. "I just think it's exciting." Maybe it's all in how you look at it. But she admits there is danger involved. Last winter she ended up with five broken ribs and a broken back because a machine in front of her lost power, touching off a chain reaction of collisions at high speed. Luckily, Kathy had a speedy recovery and looks forward to more snowmobiling.

New Season

Neither Kathy nor Ken will definitely say one way or the other what their plans are for this season, but something about their expressions betrayed their intentions. Our guess is that the first heavy snowfall will hardly have time to settle before they start their engines!



Jon and Kathy Nedrow in their living room beside some of Kathy's trophies. Trophy in foreground was won at 1972 world series.

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Look What's Coming...

NATIONAL FARM WIFE MONTH!

That's Right. Because our staff feels so strongly that it's time farm wives were given due recognition for their contributions to agriculture, *Farm Wife News* is designating the month of November, 1973, as *"National Farm Wife Month."*

We're handling complete sponsorship of this special "month", and we have some elaborate plans to raise public awareness of the farm wife's role as a partner to her husband in the industry that feeds the world.

First of all, we're distributing *200,000 bumper stickers* boldly displaying our theme for this special month: *"We Salute Farm Wives . . . Proud Partners in Agriculture."* We're distributing special releases to over 3,000 rural newspapers calling attention to the "month" . . . plus urging farm broadcasters to interview selected farm wives during November regarding their roles in their farm communities.

Basically, we want to spread the word that today's farm women are *alive* and *alert* . . . are working hard for their farms and their communities . . . are aware of what is going on in the world and ready to lend a hand to make it better. Our aim is to get the farm wife's story *beyond* the *Farm Wife News* audience to the general public, to increase understanding and open better lines of communication between rural and urban people.

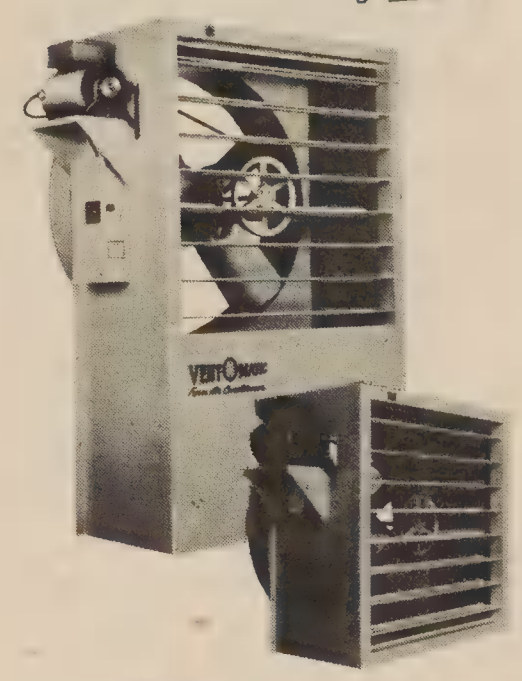
"National Farm Wife Month" will provide that opportunity, and we plan to make the most of it on your behalf. You're sold on farm life . . . we're sold on farm women . . . and we're gonna tell the world!

Farm Wife news

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HANDY for Farm and Home

No Stick — When using a wood clamp to hold glued pieces of wood together until glue has dried, prevent marring by placing wooden blocks between jaws of the clamp and glued pieces of wood. To be sure the small blocks do not become glued to the wood surface, insert a sheet of wax paper between blocks and finished surface. Of course, wax paper also will keep wood and clamp jaws from being glued together if smaller blocks are not used.

Thread Maker — When brass screws are desired in hardwood cabinetry, but break off when driven into the wood, locate a steel screw with thread size exactly matching that of the brass screws. Use the steel screw to cut threads into the wood, then replace it with a brass screw. Repeat steps for other brass screws.

Opener — To keep a saw from binding in a piece of wood, such as plywood, drop a small nail into the cut behind the saw. Nail head will keep it from falling through. If nail is too small, try a larger one.

Sanding Curves — To sand contoured woodwork or concave molding, wrap sandpaper (with the grit facing outward) around an ordinary bottle, and fasten the ends with adhesive tape. A bottle of the right size and shape to fit any curvature should be easily obtained from kitchen discards.

Sweet Stuff — To prevent empty beehive supers from being blown off the hive by sudden gusts of wind, they may be anchored in place with two steel rods. Drive screw eyes into both sides of each super (eyes in top super only may prove adequate) so that eyes line up one above the other. With rod inserted through the eyes and stabbed into the ground, supers are kept in place. Supers are quickly added or removed during heavy flow of honey by sliding them up or down over the rods.

No Splatter — When replacing the lid on a can of paint, cover the lid with an old piece of cloth. This allows you to hammer the lid down tight all the way around, without getting splattered by any paint that may be violently forced out from between lid and rim.

Grass Cover — To be rid of grass around fence posts bordering a lawn, cut square pieces from discarded roll roofing and fit them around the posts. The squares will kill off any growth under them, as far out from the posts as the dimensions of the squares.

Overhang — Before bolting a bench vise in place, be sure the rear stationary jaw of the vise overhangs the edge of the bench. Otherwise difficulty will be experienced in placing long shafts or rods vertically in the vise. An "overhang" of only a fraction of an inch should suffice.

Thong Thing — A modified steel darning needle makes an excellent tool for lacing leather thongs through punched leather. First, drive the point of the needle into a length of wooden dowel; this will be the leather-working tool's handle. Next, break off the very end of the top, or eye, of the needle. This will form a small, two-tined fork. In use, the small fork straddles the leather thong so it may be punched easily through holes in the larger piece of leather.

The Song of the Lazy Farmer



The almanac says we'll be stuck from now 'till spring with awful luck; it says the weather'll be so bad that nothing grandpa ever had could match the winter that's about to hit us with terrific clout. The book says that when April's here we'll all send up a mighty cheer while weather experts check to see how many records fell, by gee. We're told we can expect the snow to pile up four feet deep or so; three days in four are bound to bring a blizzard from the north, by jing, and even when the sky is blue the temper'ture will chill us through.

There's disagreement in my house 'bout what the forecast means; my spouse insists it's all just foolishness, she says there's no one who can guess about what weather's apt to do for more than just a week or two. But signs already show this fall that almanac is on the ball; I say we should get ready for the weather it says is in store by selling off our pigs and sows and also all our calves and cows and cut our hens to two or three . . . their eggs will be enough for me. That way, we'll cut down on our chores and spend most of the time indoors.

American Agriculturist, October, 1973



by Amos Kirby
New Jersey Editor

Roadside markets

THE food situation this year has improved the outlook for both roadside markets and pick-your-own systems of meeting consumer demands.

In my recent travels, I have interviewed two successful growers. One grower, who had directed his marketing toward the chain stores in past years, recently built a roadside market and now sells practically his entire output through it.

Another grower, who has more than 1,000 acres in vegetables, and has contacts with wholesale buyers of quality products, has purchased land adjoining his farm and will construct a modern roadside market.

Both growers are efficient producers and have the ability, land, equipment and the finances to produce top-quality products. Roadside markets offer an opportunity to obtain more stable prices, and margins considerably wider than sales to wholesale outlets.

The pick-your-own growers have successfully encouraged consumers to come to the farms. It eliminates the cost of packages and picking, and the consumer has welcomed the opportunity to learn something about how food is produced.

MARKETING GRAINS

Corn and soybean growers are facing an important question: "Should I sell or store at prevailing prices?" Some growers of wheat, corn and soybeans in 1972 found that the market advanced to record prices **after** their crop had been sold.

According to economist W. T. McAllister of the University of Delaware, growers should store at least part of their crop. He adds that grain buyers will be offering attractive prices at harvest time to get corn and soybeans off the farm and into their facilities. At the same time, growers should recognize that the costs of drying will be higher this year because of rising fuel, shrinkage and labor costs.

When it becomes a choice between storing corn or soybeans, remember that an acre of soybeans takes only one-third as much storage space as an acre of corn. Furthermore, most soybeans (most years) don't need any artificial drying in Delaware.

Finally, McAllister advises livestock farmers to store all the corn they will need for next year. If a drying unit is available, use it. If no dryer is available, consider storing high-moisture corn in appropriate facilities.

WHEAT ACREAGE

Wheat looks like a profitable crop for 1974 . . . and it's a crop that is flexible if conditions change. Land planted to wheat this fall can be plowed and planted to other crops

(Continued on page 42)

COUNTY WINNERS CHOCOLATE CAKE CONTEST

Hundreds of Grangers have competed in this year's Chocolate Cake Contest, co-sponsored by AMERICAN AGRICULTURIST and New York State Grange. We are now approaching the most exciting part of the contest, and here are names of the 53 Pomona winners who will compete in the state finals to be held at Cortland later this month. Our December issue will carry a story of the finals, and there'll be pictures of all winners who are present at State Grange on Tuesday morning, October 23.

COUNTY WINNERS

COUNTY	GRANGE	WINNER
Albany	Ravena	Mrs. Doris Irving
Allegany	Cuba	Mrs. Carolyn Graves
Broome	Binghamton	Mrs. Mildred Kauffman
Cattaraugus	Cottage	Mrs. Mary Lou Hubbard
Cayuga	Auburn	Mrs. Bernice Van Vleck
Chautauqua	Kennedy	Mrs. June Town
Chemung	Chemung	Mrs. Mabel Miller
Chenango	Norwich Township	Mrs. Clayton Barnes
Clinton	West Chazy	Mrs. Hedwig Baxter
Columbia	Johnstown	Mrs. Clarissa Moore
Cortland	South Cortland	Mrs. Marion Griswold
Delaware	Pepacton	Mrs. Carl Brown
Dutchess	Sylvan	Mrs. Melvin Morris
Erie	Orchard Park	Mrs. Doris Schichtel
Essex	Whallonsburg	Mrs. Herrick Cross
Franklin	Bangor	Mrs. Helen Brooks
Fulton	Sacandaga	Mrs. Cassalene Lindsay
Genesee	Stafford	Mrs. Stanley Waldron
Greene	Jewett	Mrs. Gladys Holdridge
Herkimer	Norway	Mrs. Marjorie Dygert
Jefferson	Star	Mrs. Grover Brenon, Jr.
Lewis	Adrondack	Mrs. Herbert Kampnich
Livingston	Pamona	Mrs. Margaret Gianvecchio
Madison	Lenox	Mrs. Frances Hertel
Monroe	Mendon	Mrs. Emma Years
Montgomery	Freysbush	Mrs. George Slingerland
Niagara	Pendleton	Mrs. Wilfred Miller
Oneida	Lee	Mrs. Stuart Preston
Onondaga	LaFayette	Mrs. Robert Amidon
Ontario	Wide Awake	Mrs. Florence Jeffery
Orange-Rcklnd.	Wawayanda	Mrs. Viola Gray
Orleans	Barre	Mrs. Eva Harling
Oswego	Mexico	Mrs. Marion Martin
Otsego	Worcester	Mrs. Alta Chase
Putnam-Wstchr.	Cortlandt	Mrs. Kenneth Speedling
Rensselaer	Brunswick	Mrs. Sanford Bonesteel
Saratoga	Milton	Mrs. Tarsilla Cromie
Schenectady	Gifford	Mrs. Harold Hahn
Schoharie	Rock District	Mrs. Mabel Bellinger
Schuyler	Townsend	Mr. Clifford Boyce
Seneca	East Fayette	Mrs. Ruth Stahl
Steuben	Troupsburg	Mrs. Donna Prutsman
St Lawrence	Rensselaer Falls	Mrs. Doris Weatherup
Suffolk-Nassau	Sound Avenue	Mrs. Harry DeVeau
Sullivan	Liberty	Mrs. Rita Van Etten
Tioga	Tioga	Mrs. Marion Zorn
Tompkins	Ulysses	Miss Sarah Nivison
Ulster	Hurley	Mrs. Vernon Goetchius
Warren	Stony Creek	Mrs. Martha Brownell
Washington	North Granville	Mrs. Frances Gibbs
Wayne	Wolcott	Mrs. Alice Shear
Wyoming	Warsaw	Mrs. Etta Clark
Yates	Penn Yan	Mrs. Fenton Wagar

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Machinery management

by Gene Willey*

GOOD machinery management may not produce results as glamorous as a high herd average or type classification, but it is the mortar that holds the management structure together.

There are many ways to analyze your machinery management skill. Probably the fastest method is to ask a stranger who has just driven by your farm.

We have a neighbor whose farmstead always looks so neat and tidy . . . every piece of equipment has its place under cover and is put there when not in actual use. I'm sure he not only has the most attractive farmstead, but also the lowest machinery-maintenance cost of any farm in the area.

Here at Cream Hill Farm, we've given priority to **herd housing** in our expansion program. We fully realize the importance of keeping equipment under cover, but there is always a shortage of capital to do **all** the improvements desired. The most expensive equipment takes precedence for access to the limited storage area in back sheds, barn floors, and granaries.

Too Big

So much of today's expensive equipment is so large that it won't fit through small doorways in older buildings . . . or it's too heavy to back upon barn floors, which results in inefficient use of the limited space that we do have. Nothing is more frustrating than working two hours to dig out a piece of equipment from a "McGee closet," and then use it for fifteen minutes! If we fully analyzed the potential savings in wear and tear of our equipment, and the benefit from having equipment ready to operate when needed, we would give higher priority to adequate, convenient storage for equipment.

When constructing a machinery-storage building, one "must" is a heated and enclosed shop built into this structure (with access doors large enough to accommodate large machines). A lot of farmers would do more repair work themselves, and thereby reduce some of the expense of hired machanics, if they had a convenient, warm place to work. It's hard to envision a professional mechanic working under conditions that many farmers suffer as they do their mechanical work.

Mechanics

In this area, there are several professional mechanics available at reasonable per-hour rates to do any type of repair on the farm. "Have tools, will travel" could be their motto. If we could effectively hire these men by providing an adequate working area . . . for those jobs we aren't skilled enough to do, or haven't the time to do . . . then machine repair could be done more at our convenience and at less cost.

Five hours of a mechanic's wage are used up in hauling expense every time our tractor is trucked to the service shop. Sometimes, repair costs seem insignificant when compared to the harvest loss caused by untimely breakdowns. Breakdown time can be shortened considerably by a convenient, well-equipped shop . . . that also includes toilet facilities.

Farm management specialists working with Electronic Farm Accounting (Elfac) report an average equipment investment per farm of $40,000 . . . so today's farm operator **must** take a very hard-nosed approach to machinery management. Too many times, this phase of our farming enterprise is only given serious consideration when figuring our income tax.

Equipment depreciation may come in handy then, but it's just as much an operating expense as that yearly maintenance bill. The whole family quite often lets emotions decide when, how, and what farming equipment they will buy or trade.

Son John, who is chief tractor-operator of our clan, so often chides me, "Dad, why don't we trade this or buy that piece of equipment? All we do is fix the darned thing!" What he says is no news to me . . . sometimes I think he's just reading my mind! But I just nod my head and come back with that same old speech. As long as the questioned piece of junk is repairable, serviceable, doesn't slow up production, and does the intended job, we'll keep it!

Maintaining worthy older equipment sometimes is trying, but I sincerely feel that this area is one of the most financially-rewarding jobs a farm operator can set his hand to. If you have $40,000 invested in equipment over every four years (as a friend of mine does), your yearly cost **just to maintain** your equipment investment is $10,000. Add your machinery repair bill to this and watch the black ink turn to red!

Lease Plan

I bought my first diesel tractor under a so-called lease plan. But under today's tax structure, I can see no real advantage to obtaining equipment this way unless the buyer is faced with a shortage of capital.

Under ambitious expansion programs, farmers are sometimes wise to lease . . . or purchase equipment with delayed payment . . . if capital is short. The farmer has an opportunity thereby to utilize this equipment to expand his income. And buying "a year ahead" helps him to keep his machinery investment down by that inflationary six percent which seems to increase purchase costs of equipment every year. If we as farmers are going to increase our income and net worth, we will have to play the game according to different rules than we have used in the past.

Farmers generally place a great deal of confidence in, and develop a sincere respect for, their doctors, veterinarians, accountants and lawyers. But this air of mutual trust is not always the case between a farmer and his machinery dealer.

Yet, I feel this can be one of the most rewarding business connections. Just the dollar volume that passes from farmer to machinery dealer warrants a high priority to cultivating a pleasant and mutually-rewarding relationship.

Repairmen working for these dealers tell me that much of the machinery-maintenance expense is unnecessary. If farmers would thoroughly investigate the mechanical ills of their equipment **before** hiring a truck to haul it several miles to town for repair, many repair jobs could be done inexpensively on the farm by a mechanic or by the farmer himself.

As is the case with most farmers, I have a practical knowledge of general repair . . . but many times I'm stumped by a balky engine that skips or knocks or smokes or just won't start, or a hundred other things I can think of. A quick call to my machinery dealer, and some sound instructions from the shop foreman, usually solve the crisis . . . and I'm all the better equipped to handle the next mechanical problem.

Now a good relationship isn't developed by all the consideration going one way. The mechanic has his problems, too. There are days when it seems that **everybody's** chopper is broken at once. A little consideration for your machinery dealer's feelings and problems will go a long way to promote an enjoyable and profitable relationship.

Machinery dealers are specialists. They are generally honest, hardworking businessmen. They must make a reasonable margin of profit to stay in business and perform their functions in agribusiness effectively.

Attitude

If our attitude toward these men is built upon sincerity and trust, we will have a preference when seeking used machinery that's in high demand. Of course, much of today's used equipment will not lend itself adequately to the age of automation, which should be given first consideration.

When revising and updating our equipment, sincere advice from our

(Continued on page 43)

*Dairyman, Bridport (Addison County), Vermont.



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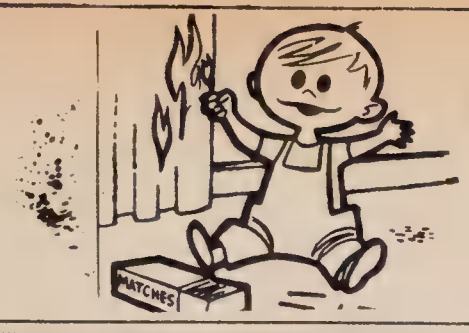
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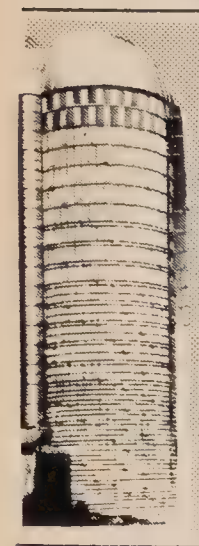
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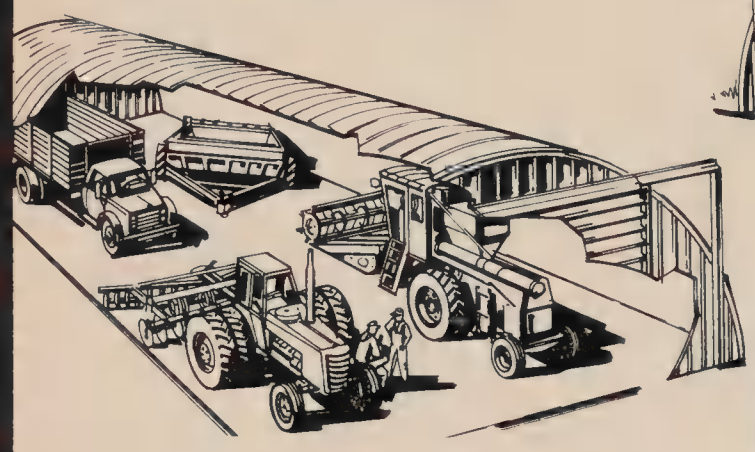
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AA10/73

Kirby . . . . .

(Continued from page 39)

if it should appear next spring that there will be a surplus of wheat come next harvest time.

In New Jersey, where there has been much idle land in 1973, wheat or rye can serve a double purpose . . . cover crop and cash crop. In recent years, considerable land planted to rye as a cover crop has been left on the land and finally harvested as grain when other crops appeared less profitable.

PESTICIDE RESTRICTIONS

The Pesticide Council of the Environmental Protection Agency seeks to ban outright the sale and use of all pesticides. At the same time, EPA is proposing to bring some 85 other pesticides under controlled use as "restricted pesticides," and another seven pesticides would be "specially restricted" as to use or concentration.

MORE HENS

There is a slight increase (one percent) in the number of layers on New Jersey farms. This is the first such change in a number of months, apparently caused by rising egg prices.

Producers seeking pullets for replacements find that top-quality pullets have been price-tagged up to $2.50 each . . . compared to $1.75 only a few months ago.

WHEN TO SPRAY

Two experiments at the Rutgers Research Center near Centerton may foretell a new approach to future use of pesticides. Tests conducted on sweet corn and Irish potatoes show that spraying frequency may be reduced by one-half from conventional schedules.

The tests on sweet corn show that the number of sprays can be reduced by correlation with those periods when the eggs of the insect pests are hatching.

On the white potato, the weekly spray schedule can now be discarded; the new approach is based on humidity and temperature. When conditions favor the growth of the blight organism . . . as determined by an index combining information on humidity and temperature . . . then fungicide spraying is called for.

TRICKLE IRRIGATION

Trickle irrigation in both New Jersey and Delaware is gaining wider acceptance. Tests at research centers in both states have demonstrated that one gets far greater water mileage by the trickle method than the overhead systems.

There is now sufficient evidence that this method requires little water to maintain good growth, even in extended drouths. Plastic pipes placed under the plants, even if delivering only a drop or so a minute from each opening, provide sufficient moisture for normal crop growth.

WORLD WITHOUT BOUNDARIES

What next? The Department of Agriculture reports that South Jersey blueberries can be delivered to Tokyo within 24 hours of harvest.

Berries were picked in the morning, loaded on Northwest-Orient airlines, and delivered in Japan the following morning.

FEED COSTS

Operators of poultry farms and dairy herds are hard hit by mounting feed costs. The Poultry Survey Committee anticipates a price averaging 59 cents per dozen on eggs for the October-December period. It is estimated that feed costs per dozen will be 12 cents higher than the same period last year.

ETHREL

Ethrel is making a place for itself by speeding up fruit and vegetable maturity by a week to 10 days. In addition, the color has been improved to the point that entire crops have been once-over harvested, compared to two pickings on untreated plots. According to county agricultural agent Robert Gardner (Salem), Ethrel applied to tomato fields has resulted in as much as a 25 percent increase in yields. It speeds up ripening, resulting in fewer tomatoes being left in the fields where mechanical harvesters are used.

Another plus for Ethrel on apples has been that the treated fruit in CA storage is of equal quality with untreated fruit as late as March.

FLETCHER THE 4-H'R



"MOM'S LIBERATED FROM THE KITCHEN SO DAD DOES THE COOKING. NOW WE REALLY SAY GRACE BEFORE MEALS!"

Machinery . . . . .

(Continued from page 40)

machinery dealer can save us disappointment and thousands of dollars. Now I don't mean to imply that we should swallow the first hook, line and sinker we come to. It pays to circulate around and nibble here and there. A lot of that good old-fashioned dickering still goes a long way when buying that new tractor, just as it once did when purchasing a horse.

Auctions

"Six-six-six, who'll give me seven," has a familiar ring. With today's prices, the auctioneer more often than not means **thousands** instead of hundreds of dollars! Just the same, many good buys can be found at auctions, but farmers have to be very cautious when buying equipment from this source.

I have several rules that I follow concerning auctions:

– Know precisely what item I want to buy, what the price tag would be when new, and what it can be purchased for from a machinery dealer. So many times I've seen farmers participate in a bidding contest, hypnotized by the chant of the auctioneer and under the spell of a competitive atmosphere, and end up paying more for a used piece of equipment than it would have cost new!

– I only attend auctions out of season, or at least when the item I'm **looking for** is out of season. A machinery auction in the fall usually presents an opportunity to obtain haying equipment at bargain prices, and a spring auction presents an equal opportunity to make a good trade on snow-removal equipment.

– Farmers must remember that when they purchase used equipment at an auction, they must absorb the cost of time spent at the auction, the trucking, lack of guarantee, and sometimes questionable performance or condition. We should not make purchases at auctions because of price alone, but **only** if the equipment purchased will do the job it's being purchased to do.

I often wonder what motivates a farmer to buy only new equipment. This seems to me an expensive habit, considering the good buys available on used equipment. It's true that second-hand equipment doesn't offer the same degree of security for trouble-free service, but we must put a dollar value on this consideration before we can justify investing thousands of dollars in new equipment.

In 1970, I bought a hundred-horse diesel tractor. It came from the state-university farm (as leased equipment there) with only two hundred hours on the tach . . . priced $3,000 **less** than a new tractor, same model. This year, I purchased a reconditioned self-propelled, five-year old chopper. I felt the $12,000 reduction in price from a new chopper of comparable size justified buying a used machine with six instead of nine knives.

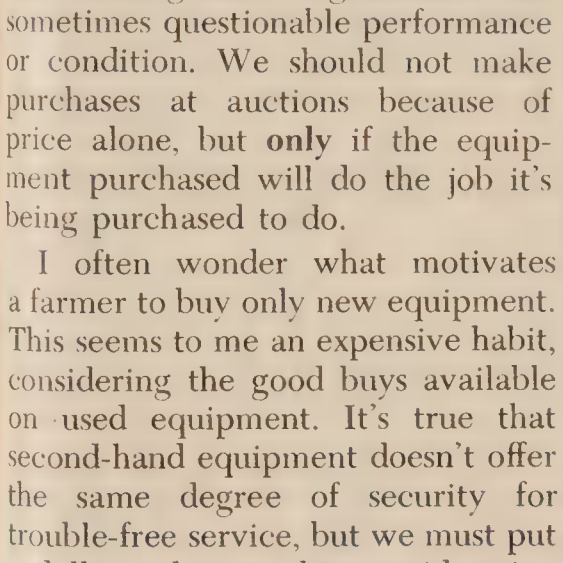
Just a few days ago, a fellow farmer questioned the practicability of the trend toward larger farm units. He felt that operators of large farms have a much higher investment in equipment. Undoubtedly this is true, but the larger farm units also have a much larger spread between farm operating receipts and equipment investment.

Elfac dairy business analysis reports these statistics for machinery investment per dollar of operating receipts on the following size farms: 40-59 cows 44 cents, 60-100 cows 37 cents, 100-200 cows 36 cents, and 200 cows or more, 31 cents. The smaller farm units have their advantages, but machinery-investment efficiency is generally not one of them.

As the purchase price and maintenance cost of equipment continue to rise six to ten percent each year, we must scrutinize our equipment investment and machinery expense with a **very** critical eye. How we succeed in our machinery management will be directly reflected in our gross income, net income, and equity in our farm enterprise.



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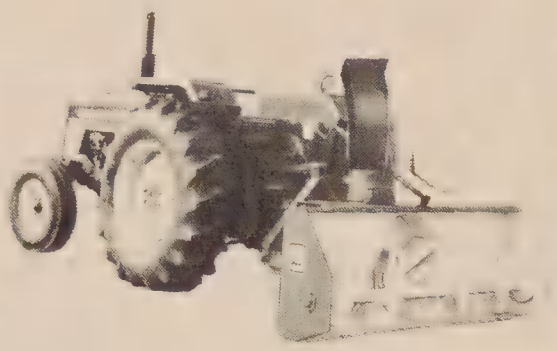
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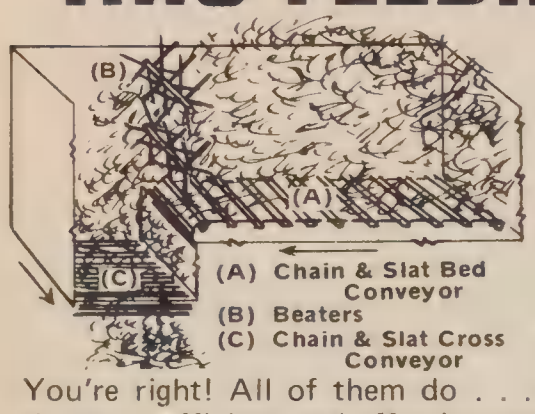
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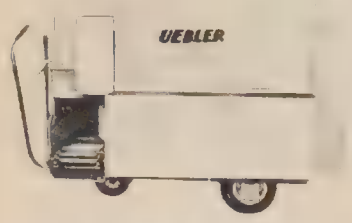
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Grandmother's Legacy



by Romeyn Berry

Editor's Note: "Grandmother's Legacy" is the second in our series of reprints of "Writin's" by the late Romeyn Berry. We appreciate your response to the first article (August 1973), and solicit your continued response.

WHEN Grandmother died twenty-five years ago she was ninety-three. She weighed just about that, too. She left the old house, thirty-odd descendants including great-grandchildren, and some securities.

Most of the descendants came on for the funeral, and afterwards we sat on the back porch overlooking her garden and talked about Grandmother. There were tears, of course, but there was a certain amount of subdued laughter, too, for Grandmother had been a peppery old lady given to ruling her household with a firm hand and to taking no advice, suggestions, or backtalk from anybody just because she was little and past ninety. It was July then, and the hollyhocks were in bloom in Grandmother's garden. The affectionate reminiscences kept on well into the summer night. The next day everyone went home, and a good many of the relatives who were there that night haven't seen each other since.

Uncle Ben was executor of the estate, and eventually settled things up according to law; but my mother lived in the old house for quite a while, straightening the place up and seeing to it (in a certain splendid disregard of the executor, the terms of the will, and the surrogate) that everybody got some legacy from Grandmother – friends, neighbors, in-laws and collaterals. Mother was a pretty dynamic person herself, and always did what she thought was right according to her inward light. She stood in no awe of the surrogate, who as a small boy, had been a member of her Sunday School class, which put him at a terrible disadvantage in dealing with her in later life.

That night on the back porch looking down on the hollyhocks, everyone had pretty much agreed that the thing we'd always most closely associated with Grandmother was her garden, and Mother remembered that when she got around to settling the estate in her own way.

In the spring Grandmother always had grandiose ideas about the garden, and started off in a typhoon of agricultural enthusiasm which always blew itself out to a dead calm as the weather got hot and other things came up to divert her interest. That kind of a gardener runs eventually to hollyhocks mostly, which are tough, independent organisms, thriving most luxuriantly under contempt and neglect. And Grandmother loved the hollyhocks best of all the flowers. She was secretly grateful to them, I think, because they so successfully covered up the evidence of her annual backsliding – spreading out, blooming gaily and concealing the other plants she should have cultivated and watered but which she forgot about in her conflicting interests and enthusiasms.

The estate was not a large one as such things go, but thanks to Mother's superior attitude toward the surrogate, every descendant and collateral to the most remote degree got some sort of keepsake to remember Grandmother by. And on top of everything else, Mother saw to it that on the first Christmas following every relative received a generous packet of hollyhock seeds from Grandmother's garden, intended to keep up the chain of affectionate association with the old home after it was sold, as it had to be.

I planted my hollyhocks that May down in Jersey two hundred miles away from Grandmother's garden. They came up splendidly and the second year they bloomed, and our branch of the family has never suffered from a hollyhock shortage in any subsequent scene or season. The hollyhocks we have right now at Stoneposts are all direct descendants of that original stock, and we've had them on four different places in the intervening years. Other cousins did the same thing with their seeds and with comparable results, so that now Grandmother's hollyhocks have spread to many parts of the country as a symbol of kinship and of a common starting place among relatives who scarcely ever see each other nowadays.

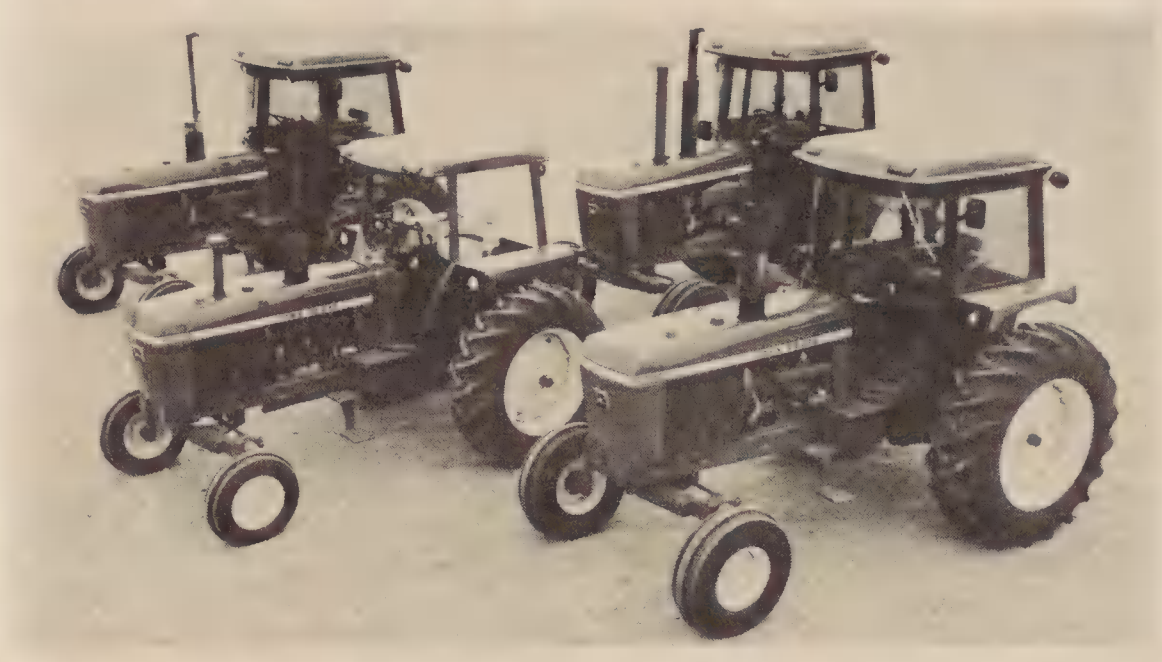
Later on, too, when it became necessary to take snapshots of new babies to send to the cousins and the aunts, it became the family custom to take those pictures against a background of Grandmother's hollyhocks as a sort of trademark. In that way we all got occasional reports on the hollyhocks as well as the new babies, and both seemed to be thriving equally well in Maryland and Michigan, in Pennsylvania and Nebraska.

Grandmother left some securities also — railroad bonds and bank stocks mostly, I believe — but those, of course, were divided among the first generation of her descendants, and I didn't know of that part or hear it talked about. In our family securities have always been regarded as a pretty serious matter not to be mentioned. We're much more apt to discuss gardens. But twenty-five years have gone by since Grandmother died, and that quarter of a century has seen a World War, a Depression and now a Recession — events that have had a tendency to do unpleasant things to stocks and bonds. While I don't really know, I can imagine that some of those securities have dwindled away in some quarters without anyone knowing just how and without anyone being at fault. It's a quaint paradox that the part of the estate administered so skillfully by Uncle Ben and the surrogate did not do uniformly well once it passed beyond their control, but the part that mother handled in her lawless manner has multiplied and thriven like the flocks of Jacob, and the hollyhock legacy now seems destined in the course of time to make the summer gay the whole world over.

That's just the way, I think, Grandmother would have liked to have had her estate work out. World Wars and New Deals, depressions and drastic social changes would have worried her of course, but in some way of her own she would have risen superior to her immediate situation, having convinced herself of the basic changelessness of the eternal verities through her observation of the unvarying cycle of the seasons. She would have disliked to see any of her legacies fade away, but between the two, she would have preferred to see the stocks and bonds dwindle and the hollyhocks periodically declare extra dividends in her memory across the land. Probably, too, after ninety one gets a more serene attitude toward relative values and knows that checks and coupons do not long sustain visions of old days. It takes the hollyhocks to bring back annually the picture of a little old lady puttering away in her garden and unknowingly creating the only kind of an estate that can survive the vagaries of change.



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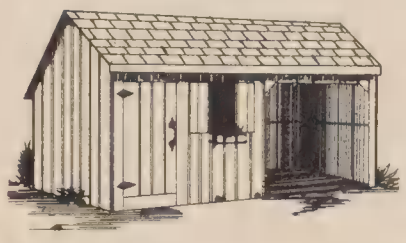


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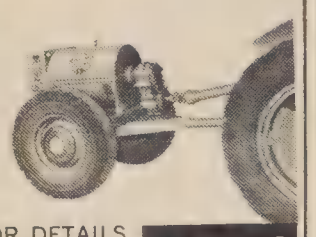
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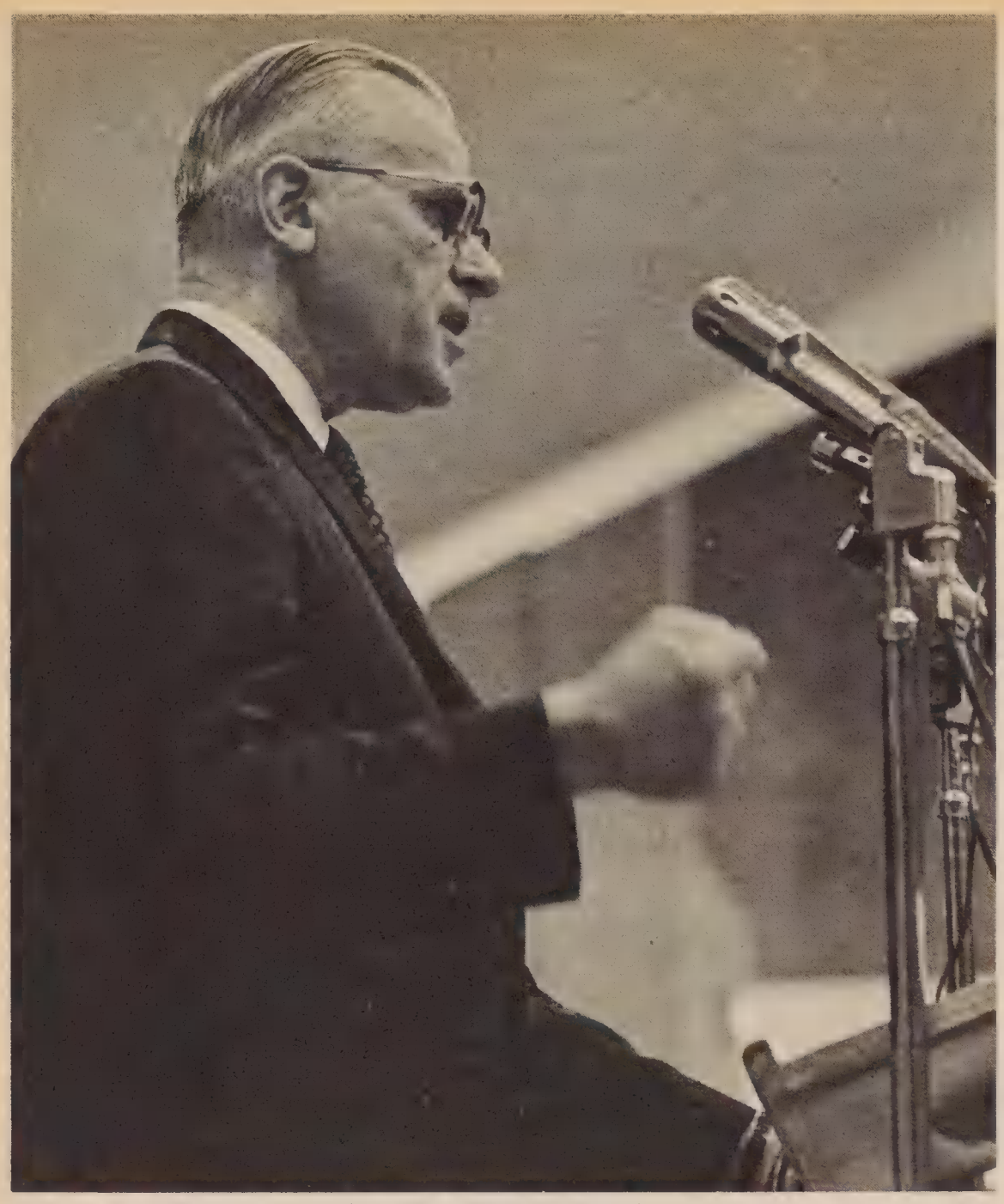
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The incentive society

by Secretary of Agriculture Earl Butz

THROUGHOUT our history — as a people and as a nation — we have prided ourselves as being a nation of entrepreneurs, a nation of innovators, a nation of precedent-breakers, a nation of get-out-of-the-rutters, a nation of profit-seekers.

Traditionally, we sum this up as "free enterprise." Economists refer to ours as a capitalist system. We are incentive-dominated. In short, we are an incentive society.

We can describe the incentive of our society in a single word — profit. Profit moves the economy.

The profit incentive finds various forms of expression. It may take the form of an exchange of labor for a wage, of extractive activity, of production, or of providing services.

The profit incentive may find more sophisticated expression in straight business dealings, or through trading in the market, or in the form of speculation. Each function is vital to the smooth operation and continuous growth of our incentive economy.

The fact that our society is incentive-oriented is exemplified by our great capacity for self-improvement, our drive for advancement, our desire for a higher level of living, our search for excellence, our discontent with the ordinary.

The result is clear. Here we are a mere six percent of the world's population . . . a young nation in a relative sense, a veritable melting pot of people. Yet we use 33 percent of the world's energy, we have 38 percent of the world's television sets, we drive 44 percent of the world's motor vehicles, we use 35 percent of the world's electricity, we consume 26 percent of the world's steel, and we fly 58 percent of all civil air miles flown.

The truly unique feature of our society is our historic and tenacious dependence on the incentive system as the dominating force in our economy. This nation remains strongest, the most competitive, and the most envied in those sectors where that incentive remains most dominant.

Food is a prime example. It is no accident that Socialist countries are now coming to this incentive-dominated system of the United States for massive supplementation of their domestic food supplies. The Socialist nations have available the physical ingredients of our productivity. It is our incentive system which makes the difference.

When foreign agricultural specialists come to this country to visit, they take back with them our hybrids, our fertility techniques, our pest treatment technology, our disease control methods, our tractors, and our combines — in fact every tangible production item.

But they cannot make them work because they do not have our secret — the man out there on the land seeking to make a profit. Nor do they have the system of support industries seeking constantly to better serve farmers and consumers in order to make a profit. That incentive makes the system work.

We have conducted a two-century experiment with an incentive economy. The results have been fantastic. But what of our experience? What have we learned — and what have we forgotten?

Right now our system is being sorely tested. The incentive orientation of our economy is being questioned as never before.

We have temporarily removed incentive from the driver's seat. Consumer pressures — so easily translated into political pressures — have taken the wheel. We have experimented with government-administered prices. We have just gone through a period of retail price ceilings — and lengthier meat price controls. We have toyed with the idea of price rollbacks.

The results have not been satisfactory. Tight supplies and near-record prices haunt the food industry.

Has our experience taught us a lesson? It should have. Let me cite three instances in which our abdication of the incentive system — and our opting instead for government management — have been clearly counterproductive.

First, let's consider the case of price ceilings on broilers in 1972.

Because broilers are slaughtered and packaged near the point of production, they are considered processed and were therefore subject to Phase II controls. Broiler prices follow a seasonal pattern. As those prices approached the upward part of the normal cycle, the Phase II ceiling was clamped on.

When broiler producers were robbed of the opportunity for anticipated profits, they cut back on production. Some breeder flocks were liquidated. By the time the ceilings eventually were lifted, broiler production had dropped. The supply of broilers slipped while broiler demand remained strong. As a result, broiler prices jumped to the highest level in 20 years.

Broiler price ceilings under Phase II were clearly counterproductive. They **reduced** supplies when increased supplies were needed — and prices, instead of being held down, ultimately jumped to much higher levels than would otherwise have been the case.

Phased

Second, let's consider the pork and poultry retail price ceilings under Phase III-½.

Pork, poultry, and egg prices could not increase at the supermarket. Grocers, therefore, could not pay more to processors, nor could processors pay more to producers. Yet, production costs increased — to the point where costs, in some cases, exceeded what products could be sold for. For many pork and poultry producers, there was no incentive to produce. In fact, with even a dull pencil most farmers quickly calculated losses. Thus, there was a clear disincentive to keep producing.

As a consequence, poultry breeding flocks were again liquidated-and the result is fewer broilers and eggs now and in the months immediately ahead. Also, heavy gilts and piggy sows were slaughtered — and the result will be short pork supplies this fall and winter.

Again, retail price ceilings were clearly counterproductive: Price ceilings made it impossible to earn any profit raising hogs and poultry so breeding stock was slaughtered, and we are now suffering the consequences — short supplies and near record prices.

Beef

Third, let's consider the extension of price controls on beef beyond the time when all other food price controls were relaxed.

The treatment of beef was noble in purpose. Beef price ceilings were to be retained until September to spread out the release of accumulated price pressures. Cattlemen, however, figured that prices would ultimately increase when controls came off. So feeders held cattle from market. The extension of controls cut beef supplies by about 30 percent.

Furthermore, because beef is scarce, demand for poultry and pork has multiplied. This demand, coupled with pressure released when pork and poultry controls were lifted, pushed prices even higher.

Extending beef controls has turned out to be doubly counterproductive. Beef supplies dwindled, and other meat and protein food prices are higher than they would otherwise be.

In all three cases, under this experiment with controlled prices, we have bid for less-and then we wonder why farmers won't respond by producing more. That just isn't how an incentive system works.

Price ceilings destroy incentive.

Incentive is reflected in prices. Prices foretell the profit a producer can expect to earn by his production — or what he stands to lose. The more he can earn, the greater his incentive to produce. The more it appears he may lose, the greater his disincentive to produce.

There is no question that government can have impact on an incentive economy. The question is: Can we cope with the consequences?

Government programs for years have functioned as positive incentives. When government wanted more of something, it set high supported or subsidized prices. Those subsidies were incentives. Increased production usually followed.

Subsidies produce distortions — but the distortions are generally deemed desirable ones. Even when those distortions become problematic, there is a solution — admittedly with a cost. For, instance, when too much production results, we either store it (at a cost), or give it away (at a cost), or destroy it (at a cost). In other words, distortion that results in excess production is distortion we can **buy** our way out of, provided we are willing to stand the cost.

Government price ceilings — as we experienced last year in broilers, as were imposed on all meats from

March through July, and as remained on beef to September — also have impact on an incentive economy.

Price ceilings, however, are a disincentive to produce. They cut profit potential, and in some cases clearly ensure losses. Farmers see less opportunity to earn a profit — or greater danger of suffering loss. Production drops. While prices are effectively held down, reduced supplies make price ceilings counterproductive.

No amount of government money can buy a pork chop which isn't there. No miracle of government action can provide consumers meat that was not produced.

Price ceilings, unlike price subsidies, are one form of government manipulation which we cannot buy our way out of. There is no possible way to resurrect the pork chops which are destroyed when a pregnant sow is slaughtered because price controls signal the farmer that he would lose money by keeping that sow and feeding her litter. Those pork chops just do not exist.

We must not attempt to insulate consumers from the forces of the world market.

That is precisely what the Economic Stabilization Program, and food price ceilings especially, attempted to do. Inflation — not food prices — was the problem. We needed a cure for inflation. Yet, as a people we lacked the courage to do what was necessary to stem inflation. So we took out after the symptoms.

In short, we tested the possibilities of insulating Americans from the trend of rising world prices. We adjusted prices and wages through a series of economic phases. We established a Cost of Living Council, not with the mandate to halt inflation but with the primary charge of worrying about the domestic cost of living. It was separated from other problems like the balance of trade and the health of the economy in general.

The attempt to insulate the American consumer distorted the supply and price situation. It had further repercussions as well. When our domestic prices were administered apart from the world market, we priced our items lower domestically than they were on the world market which has been spurred on by increasing demand and inflation. Thus, our products are priced lower than they should be, and the world market is siphoning our "cheap" products away to the point where we could have severe shortages.

If we should attempt to maintain this isolation of our consumers, we can only do so by cutting our exports, which will worsen our balance of trade, further devalue the dollar, and continue to weaken our already control-weary economy.

We must not veer from the road back to a market orientation, and we must expect our consumers to compete. Our consumers must bid for farm products along with other buyers around the world.

We cannot afford to limit farm exports.

We cannot afford the luxury of running away from membership in the trading world. We must be part of the world economy because the United States cannot maintain its current standard of living without massive imports of fuels, raw materials, bananas, coffee, shoes, automobiles, TV sets, and other low-cost consumer items. Furthermore, we cannot import items if we do not export. This nation would go bankrupt.

Some of the recent upsurge in international demand for American goods stems from an accumulation of dollars which we have let flow out of the country during years when our imports exceeded exports. As that happened, the dollar's value dropped. Foreign dollar-holders therefore want to get rid of them.

That situation is part of the root of our inflation, and we must recognize it. Some would-be economists have been highly critical of our very successful efforts to increase farm exports. In fact, however, agriculture is one of the few remaining sectors of the American economy in which we retain a comparative economic advantage. Farm products are, therefore, one of the few items we can trade in volume.

Increased

Last year alone our agricultural exports increased by about $5 billion. Only about $1 billion of that increase — less than one-fifth — was trade with the Soviet Union. The remaining increase in trade came chiefly from our traditional trading partners such as Japan and the European Community.

Even so, we still suffered an overall trade deficit, and farm exports are one of our few hopes for easing that deficit.

There are ways to fight inflation without violating our incentive system.

There has long been intense pressure on our government to "do something" about inflation. That was certainly the case in 1971 when the current Economic Stabilization Program was begun.

Also present at that time, however, was intense pressure to keep doing many of the things which actually fed inflation — pressure to maintain a high economic growth rate, pressure to keep a lot of credit available at low interest rates, pressure to raise minimum wages, pressure to keep taxes down, and pressure to keep unemployment low.

Cancers

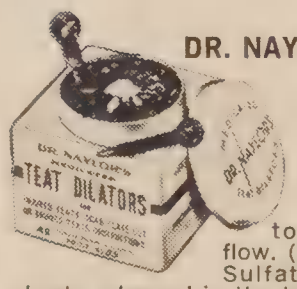
The inflation-producing spending policies which we are trying to bring into control are in fact cancers on our incentive system. As long as government promises to provide more than it demands in the way of taxes, there is a disincentive for citizens to produce for themselves. As long as credit is easy to obtain, there is a disincentive for citizens to sacrifice to accumulate capital. For too long we have failed in our attempts to eliminate inflation.

The road ahead will not be easy. We have not yet worked out of controls. Yet, we are on the road to ridding the system of the root causes of its distress. Most important, we have learned that we cannot run an incentive economy from Washington.

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BLU-KOTE

Spray or paint it on! Effective in treatment of Cowpox*, ringworm, skin abrasions. It covers wound with quick-drying, penetrating coating—to reduce pus formations, dry up secretions, control secondary infections*.



4-oz. Dauber Bottle—$1.00
6-oz. Spray Bomb—$1.29



UDDER BALM

A modern antiseptic ointment for udder and teats . . . stays in prolonged antiseptic contact to relieve soreness, reduce congestion. Softens udders and heals teats! The same soothing, softening ointment in which Dr. Naylor's Medicated Teat Dilators are packed!

9-oz. Tin—$1.25

NEW!

RED-KOTE



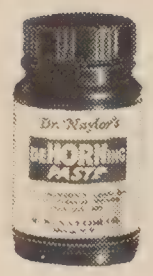
Fast new healing help for wire cuts, scratches, burns, chafes, teat sores and other superficial animal wounds. Non-drying Dr. Naylor RED-KOTE fights infection—adheres, protects, soothes and softens. Easy to apply—Paint it on or spray it on. **6 oz. Spray Bomb $1.35. 4 oz. Dauber Bottle $1.25.**

STOP-A-LEAK



For cows' teats that leak milk. Constricts round muscles at end of teat. A liquid to apply over end of teat after each milking for a few days only.

2-oz. Bottle—$1.25



DEHORNING PASTE

Quick and economical method of dehorning young animals. One application over horn button is all that is required. May be used any time of the year. No cutting—no bleeding.

4-oz. Jar—$1.25

At drug or farm stores or mailed postpaid:

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Morris, New York 13808

Dr. Naylor

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"The Dependables for Dairy Care"

1½ CORDS WOOD HEAT MAINE HOME AUTOMATICALLY IN AMAZING

ASHLEY®
Thermostatic Circulator
The original, patented; cannot be duplicated.



In the morning just turn up the thermostat! One fire lasts all season!

One filling lasts 12 to 18 hours. Set it and forget it. Safe, dependable. Circulates the heat—up to 6 rooms. Burns any kind of wood, green or dry, up to 2 ft. long (no need to split logs). Uses ⅓ the wood of others, owners say. Combustion so complete little or no ashes to empty. Invention of patented Ashley downdraft system made it all possible. Backed by over 100 years of heater manufacturing. "It's hard to believe a wood heater could give so much satisfaction," says Alaska Highway News. From Canada: "It was 20° below; we filled up the heater and were away 18 hours; when we got back the house was warm and the heater still going strong." Mich.: "Excellent service for 6 winters and is in splendid condition." Mass.: "My heating cost is nil." Minn.: "We heat a 7-room house; it is all you said it is." N.Y.: "Never out since I started it." Maine: "We did not use over 1½ cords all winter, and that mostly green poplar. Our friends were amazed." Thousands of happy owners from Florida to Alaska.

For free folder send coupon below.

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Gentlemen: I am interested in____ coal heaters,____ wood heaters (Check one please)
Please send free folder and name of nearest dealer.

Name____ Address____

City____ State____ Zip____

County____ Dealer inquiries also invited.

ORIGINAL PATENTED ASHLEY THERMOSTAT ALSO AVAILABLE ON CAMERON COAL HEATERS!

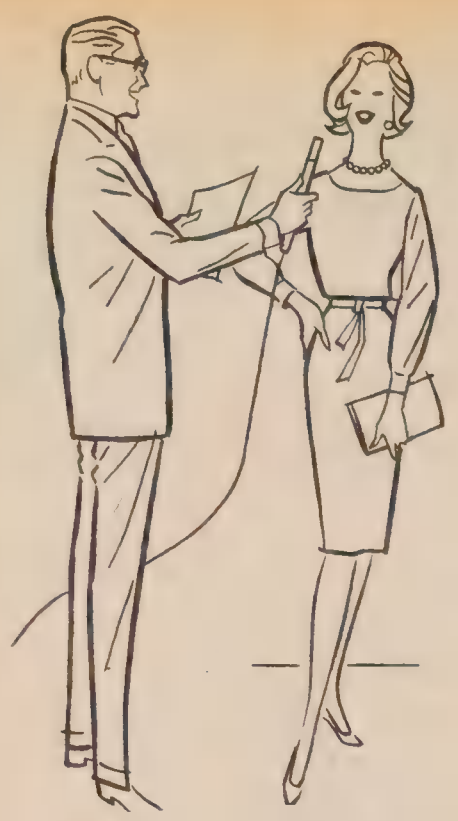
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Speaking up for agriculture

Mrs. Madalene Kelley of Route 5, Penn Yan, New York, is the winner of a $50 check from the Chevron Chemical Company, sponsor of a "Speak Up For Agriculture Contest." She tells in her prize-winning letter of the trials, tribulations, and opportunities facing grape growers in Central New York.

The third and final phase of the letter-writing contest is now underway. All contest letters received at AMERICAN AGRICULTURIST offices by November 15, 1973 will be forwarded to Chevron for consideration. At the end of the year, a panel will choose a Master Farm Spokesman from each of four regions of the United States, and each will receive a $100 prize.

Following are three questions that form the framework for the final phase of the contest . . . write on one topic, or all three. Make your letters brief and please sign your name and address. Send your letters to: Speaking Out, AMERICAN AGRICULTURIST, Box 370, Ithaca, New York 14850.

1. Many consumers lash out at farmers, blaming them for "high" food prices. Some members of the agricultural community, shaken by this injustice, advise farmers to launch a campaign to educate the consumer. "We must elevate the housewife's economic understanding," they say, "and tell her that food prices aren't high now . . . they were just too low before!"

Is such a campaign a realistic objective . . . if so, how best can it be achieved?

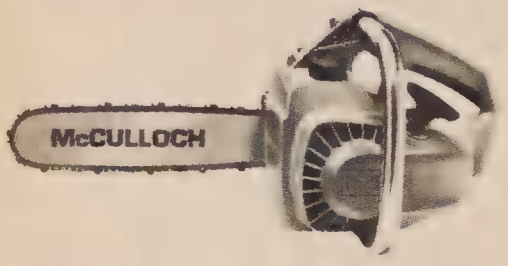
2. Dogs have always been a problem to sheep growers. In recent years, dog packs have killed thousands of deer . . . and continue to cause concern among farmers.

Would it be desirable to charge a high annual fee (say $10 each) for a dog license, and rigorously enforce laws requiring more confinement and control by the owner?

3. Farmers and their organizations have devised some effective programs for bridging the gap between farm and city people.

What have you observed in your community as the two or three most effective programs for enhancing understanding between farmers and non-farmers?

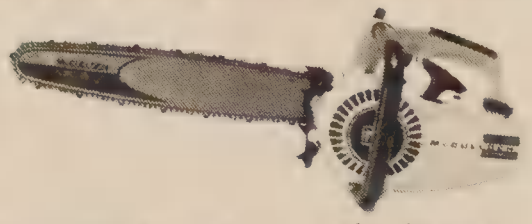
Starting at the incredible new low price of $99.95*, McCulloch now has any type of saw your farm needs.



Let Us Help You Choose the Right Saw for Your Farm. If you buy more saw than you need, or less saw than you need, you're not going to be satisfied. McCulloch has saws in every combination of power, weight and price, for every farm use, including the new Mini Mac 1 at the incredibly low price of $99.95*! And we have 26 years of experience in building the best. So let this guide help you find the one saw that's perfect for you.

The Lightest Saws for Lighter Chores. If you only need a saw to cut firewood in the winter, clean up storm damage in spring, trim and limb a few trees, build a tool shed—the lighter the saw, the better. And no saw in its price class is lighter in weight than our new 6.9 lb.** Mini Mac 1. Or consider the Mini Mac 1 Automatic with automatic oiling and a 12" bar for bigger trees.

The Do-It-Yourself Pro. If you have a lot of farm jobs, but not a lot of people to do them, light



weight *plus* power is the big consideration. Our Power Mac 6 is the only professional saw in the 6-lb. class**—that's why it's used by construction crews, tree services, other professional people who need a saw that will work harder than they do.

The Tough Saws for the Tough Jobs. The bigger and more complex your operation, the more power you'll probably need.



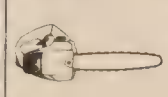
For timber cutting, extensive orchards, lots of fencing, continuing building projects—check our most powerful farm saw, the brand new Pro Mac 55; or our best-selling farm saw, the Mac 10-10 Automatic.

For the name of your nearest McCulloch dealer, look in the Yellow Pages under "saws."

Always insist on McCulloch Chains, Bows, Bars and Sprockets

Cut out: McCulloch Value Comparison Chart.

Take this with you when you go to buy your saw. Compare McCulloch saws with all the others—for power, weight and price—before you buy.

	McCulloch Model	Best For	Weight	Engine	Bar	Price
 World's Most Popular Saws	Mini Mac 1	Light chores; limbing, yard clean-up, firewood.	6.9 lbs.	1.8 cu. in.	10"	NEW LOW PRICE $ 99.95
	Mini Mac 1 Automatic		7.1 lbs.**	1.8 cu. in.	12"	$119.95*
	Mini Mac 6 Automatic		7.2 lbs.	1.8 cu. in.	14"	$136.95*
 The Super Lightweight Pro	Power Mac 6 Automatic	Heavier do-it-yourself jobs; orchards; fire wood; building.	6.9 lbs.	2.0 cu. in.	14"	$169.95
 The Tough Saws for the Toughest Jobs	Mac 10-10 Automatic	Timber; extensive orchards; fences, building projects.	12.4 lbs.**	3.3 cu. in.	16"	$194.95
 NEW	New Pro Mac 55		12.5 lbs.**	3.5 cu. in.	16"	$209.95*

Automatic models automatically oil their own bar and chain as you cut, to extend the life of these parts.

McCulloch

McCulloch Corporation, 6101 West Century Boulevard, Los Angeles, California 90045

*Manufacturer's suggested list price, including bar and chain. **Weight less cutting attachments.

BUMPER STICKER

There is an attractively-designed sticker available from Standard Chemical Manufacturing Co., Box 3844, Omaha, Nebraska 68103. It says, "Farm and Ranch . . . Where Life Begins."

The company comments that it will sell them at its cost of five cents each. Farm organizations, as well as individuals, can use these stickers to promote agriculture.

PR FOR FARMERS

KeKalb AgResearch, Inc. has prepared an eight-page pamphlet entitled "The American Farmer." It's designed to explain the importance of the American farmer, and create a mood of appreciation rather than criticism.

Copies may be obtained upon request by writing to the company at: Sycamore Road, DeKalb, Illinois 60115.



"Some day, I'll leave all this to you, but I hope you'll still remember me with affection."

ANGUS

FOR SALE: Officially, attested, advanced Register Angus bulls, also, Frozen Semen from proven sires. Write today for prices and production data. Wye Plantation, Queenstown, Maryland 21658. Telephones: 301-827-7166; 827-7160.

FOR SALE: REGISTERED Angus cows, heifers, bulls. Top quality at reasonable prices. Emmadine Farm, Poughquag, N.Y. 12570.

"COW POWER" REGISTERED ANGUS SALE
THURSDAY, OCTOBER 11, 1973
11:00 A.M.
At the Topp Hill Farm
HILLSDALE, NEW YORK
SELLING: 110 Head Registered Angus Cattle Selected from the top 10% of the following Cow Herds:
Elm Place, Topp Hill and
Walbridge in New York,
Gibbet Hill in Massachusetts,
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Ideal in New Jersey.
The greatest offering of Angus Cattle ever sold in the Northeast.
BIG, FAST-GAINING ANGUS.
For you "Cow Power" Reference Catalog address:
Tom Burke, Sale Manager
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If you don't do it, it won't get done.

GIVE THE UNITED WAY

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NEW YORK BEEF FEEDER CALF SALES 1973

Thursday, October 25 at Dryden, N.Y.
Empire Livestock Market

Saturday, October 27 at Bath, N.Y.
Empire Livestock Market

Tuesday, October 30 at Chatham, N.Y.
Chatham Area Auction

Friday, November 2 at Caledonia, N.Y.
Empire Livestock Market

Saturday, November 3 at Pike, N.Y.
Pike Fairgrounds

ALL SALES AT 1:00 P.M. CALVES GRADED, SOLD IN UNIFORM LOTS BY SEX, GRADE & WEIGHT.

— FOR MORE INFORMATION —
Robert Watson Clyde, N.Y. 14433
Phone: 315-923-7907

BEEF CATTLE

TOP PRICES PAID - Large midwest feedlot now accepting beef breed cattle and Holstein steers in this area. Phone mornings 518/686-7032.

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MAR-B CHAROLAIS RANCH featuring LCR bloodline. Registered breeding stock for sale. Mar-B Charolais, Bridgewater, N.Y. 13313. 315/822-5457 or 315/822-5935.

PUREBRED CHAROLAIS bulls and heifers from regular calving. Good milking dams, linebred - Mexican and French breeding. Performance tested certified herd. R. B. Hazard, Hidden Falls Farm, Tully, N.Y. 13159. 315/696-5353.

TAKE YOUR CHOICE from a group of highest quality purebred heifers representing French and domestic seedstock. Open or bred from our performance-tested certified herd. R.B. Hazard, Hidden Falls Farm, Tully, N.Y. 13159. 315/696-5353.

FOR SALE - PUREBRED Registered Charolais bulls, heifers, cows. Top quality, reasonable prices. Vintage Valley Farms, Delhi, N.Y. 13753. 212/263-3119.

FOR SALE: Purebred Charolais cows and heifers. A "Fuyard 1st" daughter and 1969 cow both bred to our full French "Alger" son; one due in October, the other in August. Two 1970 half French "Colmar" daughters due to "Alger" son in September. Several bred heifers also for sale. Contact: Bill Meub, Rivendell, RFD #2, Middlebury, Vt. 05753. 802/462-2377.

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CHAROLAIS: Fastest weight gaining beef breed. Make excellent crosses with other breeds. Few choice young Purebred Bulls for sale. Every animal P.R.I. tested—Best Bloodlines—Reasonably priced.
DEER HILL FARMS **CAZENOVIA, N. Y.**
R. James Hubbard, Owner **Kenneth Nye, Mgr.**

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COW COMFORT MATS for dairy barns. Priced 35% less comparable products. Save on bedding. All sizes available. For information call or write P & L Belting Co., 7938 Pershing Blvd., Kenosha, Wisc. 53140. Phone 414/-652-3912.

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FOR SALE - Registered Polled Hereford females and bulls at all times. Best of quality at reasonable prices. Clove Creek Farm, Poughquag, New York 12570. Phone 914/223-3500 or 914/223-5224.

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WORKING BORDER COLLIES - we are still having pups out of our Imp. females sired by Imp. Roy. Proven workers. If we can help you gather your stock, call or write. Also, book "The Farmer's Dog" on training and handling Border Collies. $6.00 postpaid. Edgar Gould, Shelburne Falls, Mass. 01370. 413/625-6496.

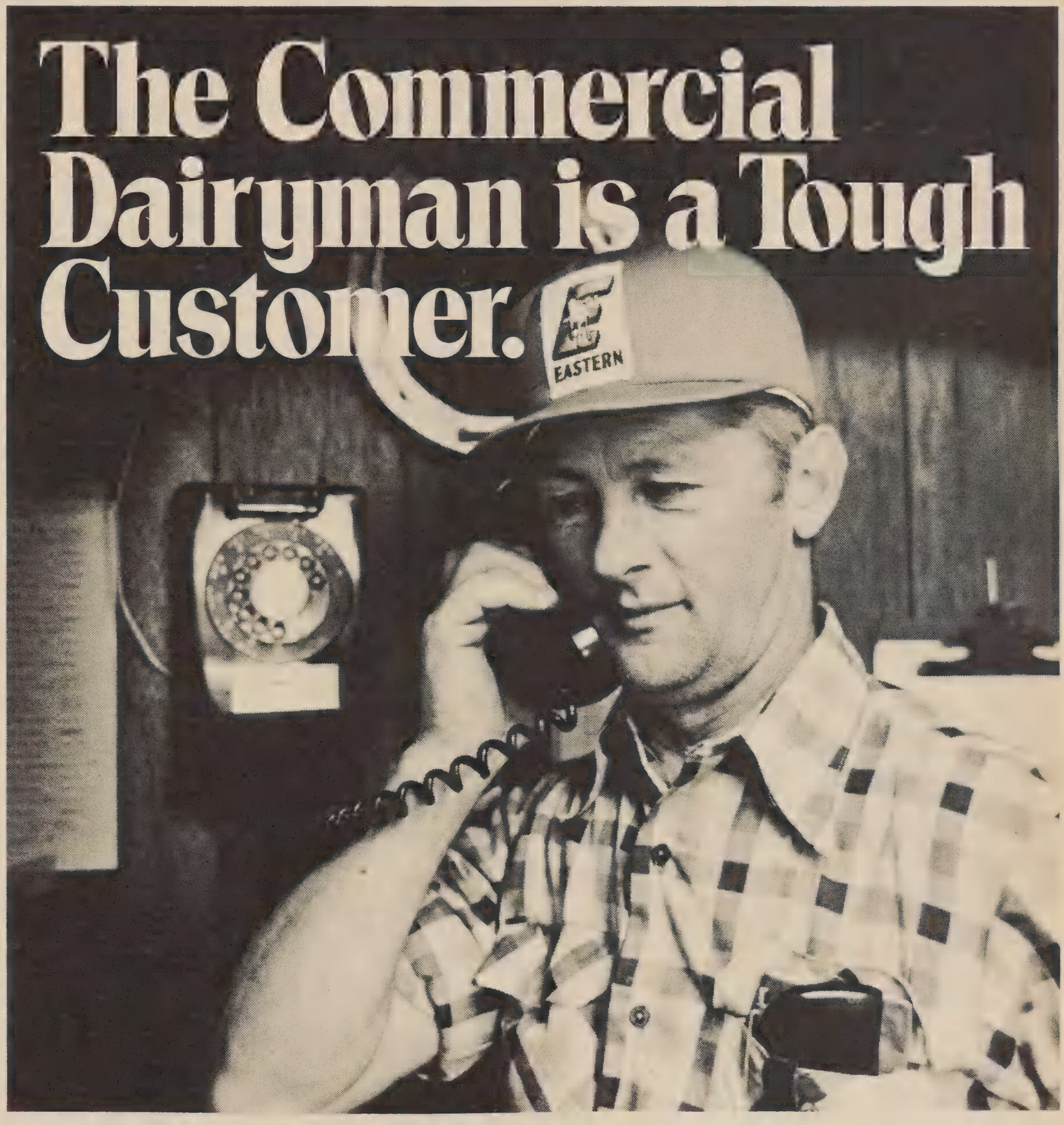
AIREDALE A.K.C. Puppies, Wirehaired Fox Terriers. Tourtellotte, Morris, N.Y. 13808. Phone 607-263-5080.

DOGS

AUSTRALIAN CATTLE DOGS. Pups $75, up. Guaranteed to heel and work stock and hogs. Bill Guynes, Route 2, Iberia, Missouri 65486. 314/793-6255. Air shipment add $35.

BOTHERED BY LIVESTOCK LOSSES, vandalism, or just a heavy workload? Get a Border Collie! Ours have top bloodlines and proven working ability. Clever, handsome pups available now. Pepper Mainwaring Healey, High Hickory, Grove Street, Framingham, Mass. 01701. 617/877-3726.

The Commercial Dairyman is a Tough Customer.



He's in business to make money. He expects a lot from his technician.

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The dairyman expects on the spot attention to his herd-breeding requirements. The Eastern Technician responds with same-day or next morning service 363 days a year. (In most areas your man from Eastern can be reached via his 24 hour call-in service.)

The dairyman expects his technician to be a real pro. The man from Eastern is best in the business, rigorously schooled and experienced. He employs the most reliable and sanitary breeding procedures and equipment available.

The dairyman expects up to date and detailed information about the bulls he uses. The Eastern Technician knows the facts about his bulls and he's in the habit of telling successful dairymen all about them. The man from Eastern also has a Sire booklet; barn poster, pedigree sheets and trait appraisal sheets; yours for the asking.

The dairyman expects extras from his technician. Herd management and record keeping aids like heat charts, stable breeding charts, cow history record sheets, and the like are part and parcel of the Eastern Technician's service.

The Commercial Dairyman expects a lot from Eastern... and he gets it.

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SHAFFNER BORDER COLLIES: Working and family dog; beautiful puppies, guaranteed satisfaction; 33 years imported breeding; registered, training instructions. Carroll Shaffner, R1, Boalsburg, Penna. 16827. 814/-466-6535.

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RABBITS

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CHOICE NEW ZEALAND white rabbits. John E. Byrne, RD #3, Turnpike Rd., Auburn, N.Y. 13021. Phone 315/252-7870.

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PUREBRED SANTA GERTRUDIS bulls for sale. These are exceptionally good quality bulls that will increase weaning weights and rate of gain in any herd. Reasonably priced. Also, crossbred Santa Gertrudis heifers for sale. Vincent Bedient, R.D. #1, Middlesex, N.Y. 14507. Phone 315/584-3279.

CHAROLAIS

CHAROLAIS

THE SALE OF THE YEAR
EASTERN NATIONAL CHAROLAIS SALE

Tuesday, November 6 — 11:00 a.m.
at Maryland State Fairgrounds, Timonium, Md.

50 HEAD

Year in, and year out, this great sale has been the source of QUALITY purebred Charolais breeding stock for breeders from all parts of the country. More than ever QUALITY is your key to profit. This sale offers you that QUALITY.

Sale sponsored by: Colonial Charolais Association

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Sale Manager
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(215) 295-6664

CHAROLAIS

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CHAROLAIS DISPERSAL
OF
LANDS END FARM and MAL-ALLEN INVESTOR HERD

Monday, November 19 — 12:00 Noon
at Farmer's Livestock Exchange, Boonsboro, Md.

80 HEAD — All Purebreds

Featuring a breeder's offering from two of the best Charolais herds in the Eastern part of the United States. Heavy emphasis will be on cows with calves at side or close to calving sired by top quality proven bulls.

The Lands End herd is dominated by the proven blood of MGM FEROZ HECTOR 343. The Mal-Allen offering will feature 4T breeding.

For catalogs write:

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Box F, 100 Walnut Lane, Morrisville, Pa. 19067
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Great Western Beef Expo
Charolais Still Does It Best



Lloyd DeBruycker, Dutton, Mont., and his high gaining pen of Charolais cross steers: 3.24 pounds per day, all graded choice and were the test's overall grand champion pen, based on both gain and carcass quality.

Charolais did it all in this most prestigious of all beef comparisons where all entries are handled the same and are essentially the same age.
Some highlights (write us for a copy for your own close study):

- **BEST Daily Gains:**
3.24 pounds per day, pen average. The high-gaining pen was never topped at any weigh period — fast, consistent predictable gains.
Every steer of the high gaining pen graded choice and averaged only 456 days of age.
- **BEST Carcass Value per Day of Age:**
$1.31 per day, pen average, from the high-gaining pen, which also was the second best set of carcasses.
- **BEST Production of Lean Beef per Day of Age:**
.920 lbs. pen average. Four of the five Reserve Grand Champion steers, overall, graded choice — from carcasses that were 7/8 and 15/16 Charolais, a real example of Charolais' beef quality.
- **BEST Single Carcass:**
Averaged 3.16 lbs. per day and had a 2.81 lbs. weight for each of its 437 days of age — one of the youngest steers on the test.
- **GRAND and RESERVE GRAND CHAMPION Sire Groups, overall**
Based on group gains AND carcass merit

Doesn't that tell you something? That Charolais, handled as all other breeds, will give you the fastest gains and still produce carcasses of the quality demanded by consumers? That Charolais grades at young ages? That high percentage Charolais carcasses approaching purebreds grade as quickly as half-bloods?



Bill Blanton, Horse Creek Ranch, Ramah, Colo., had the pen producing the highest yield of lean beef per day of age—.920 lbs. per day. The pen was reserve grand champion, overall, based on gains and carcass merit.

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Houston, Texas 77025
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Write us for your copy of these revealing test results. They'll remind you that Charolais not only is the breed that started it all, but will convince you Charolais is ***the breed that still does it best!***

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200 head of registered and high grade Holstein fresh and close up first calf heifers and young cows. New arrivals weekly.

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Purebred Charolais Bulls out of
TESTED & PROVEN SIRES
FOREST FARM URANIUM 2
Sired top gaining bull N.Y. state 1972
Sired grand champion steer Nebraska 1973
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Also
COLMAR FULL FRENCH son of SYLVAIN
Offspring sired world record gaining bull
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SUFFOLKS LEAD in tests as profitable sheep with superior meat qualities. Free booklet. National Suffolk Sheep Association, Box 324RN, Columbia, Missouri 65201.

WANTED - MERINO SHEEP & Merino Ram. F. Kelley, Cornwall, Vermont 05753.

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REGISTERED HAMPSHIRES—Certified meat tested Boars and Gilts. National championship bloodlines. Brooks End and Par Kay Farms, Reno H. Thomas, Beavertown, Pa. Phone 717-658-5821.

PIGS THAT EAT and grow. Grain fed, cut, inspected, tagged, certificate. Delivered subject inspection. Truckload lots 150 to 200 overnight New England states. Pigs 25 to 30 lbs. $30.00, delivered; 50 lbs., $40.00; 75 lbs., $50.00. Mostly York Hamp Duroc crosses. Call at night to order. References every state. C. Stanley Short, Sr., Inc., Kenton, Delaware 19955.

FOR SALE: Reg. Hampshire and Reg. Yorkshire boars, gilts, and weanling pigs. Ralph Bliek, Williamson, N.Y. 14589. Phone 315/-589-8617.

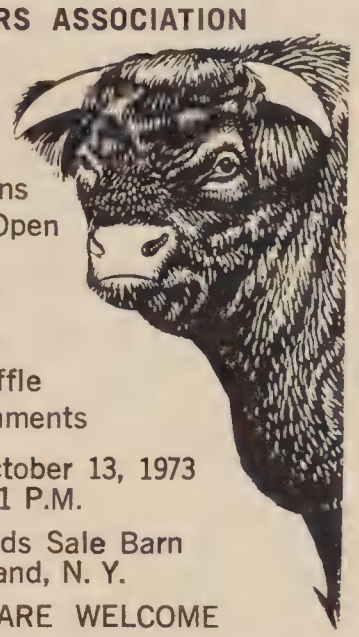
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29TH ANNUAL YORKSHIRE SALE - Friday Oct. 12, 1973 - 1:00 P.M. Sale is held in our sale barn on the farm. Selling 200 head. Production tested bred and open gilts and boars. New blood in each sale. Our latest herd sire "Accent" Reserve all American boar will be featured in this sale. 1972 Show Winners were big ones. Champion barrow New York State Fair; North Carolina State Fair and Keystone International. We had the two top cutting Yorkshires at Louisville barrow show and won Premier Breeder Awards at New York Fair and Keystone International. We had Supreme Champion Boar at Syracuse. Sale catalogues available. Brooks End and Par Kay Farms, Reno H. Thomas, Mgr., Beavertown, Pa. 17813. Phone 717/658-5821.

SHORTHORNS

NEW YORK SHORTHORN BREEDERS ASSOCIATION

FALL SALE



Cow-Calf Combinations
35 Heifers - Open And Bred
Bulls - Steers

Door Prizes
Heifer raffle
Refreshments

Saturday — October 13, 1973
At 1 P.M.

Fairgrounds Sale Barn
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ALL ARE WELCOME

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They are unbalanced . . . often pinched . . . lack capacity . . . need higher, wider rear attachment . . . bulge up front . . . may break away in early lactation . . . are often associated with small, leaky teats. A condition to be avoided. And while no one can guarantee results of one mating, the three bulls pictured here will usually help you "breed away" from meaty, round udders.

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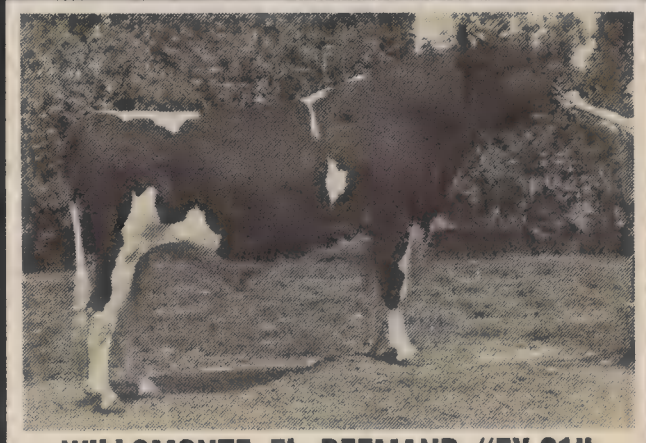
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TOMCREEK MARQUIS CHALLENGER "EX-91"
aAa: 2-4 (5-6-5-6-5-5)

USDA:	19 dtrs. av.	17,625M	3.98%	701F
(6/73)	Herdmates av.	14,980M		584F
Rept. 34%				
	Predicted Diffs.	+917M		+42F

(Preliminary—6 herds, 2 states)



WILLOMONTE EL DEEMAND "EX-91"
Gold Medal Sire (1/73) aAa: 1-2 (6-6-5-5-5-5)

USDA:	22 dtrs. av.	22,899M	3.46%	793F
(5/73)	Herdmates av.	21,602M		791F
	Predicted Diffs.	+700M	—.10%	+10F
	Repeatability 35%			



DAN-VER KING KURT "VG-85"
aAa: 2-4 (5-6-5-6-4-5)

USDA:	14 dtrs. av.	18,173M	3.74%	679F
(6/73)	Herdmates av.	16,733M		618F
Rept. 29%				
	Predicted Diffs.	+482M		+20F

(Preliminary—5 herds, 1 state)

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GRADE A DAIRY FARM, 200 acres, 180 open, best type corn and alfalfa, stone-free soil; 3 stanchion parlor, 65 free stall; 1,000 T. concrete, self-feeding bunker silo; 2 houses, outstanding neighborhood - $200,000.-00. Taxes approx. $1,000. Terms. Browning Real Estate Agency, Box 112, Culpeper, Va. 22701. Phone 703/825-0731.

FARMS—DAIRY, BEEF, sheep, cash crop, vineyard—all sizes. Business, cottages. J. R. Allen, Realtor, Dundee, N.Y. 607/292-3180.

SOUTHERN TIER N.Y. - Two productive operating dairy farms equipped, stocked or bare. One with pipeline milker, 1,000 gallon bulk tank, 2 concrete silos, 60 milkers. Other riverbottom farms - good alfalfa and corn land, 120 tillable, self feeder, complete feed mixing setup and milking parlor setup, 3 good houses, capacity for 200 head. Robert S. Petzold Real Estate, Box 335, Owego, N.Y. 13827. 607/687-0541.

FARMS FOR SALE

TOP SHAPE - 172 acre Mohawk Valley farm, 145 tillable, stream. White 9 room home, hot water heat, fireplace. Red barn for cows and horses. 2 tractors, equipment included. $89,-000. Age causes sale 330 acre St. Lawrence County farm, 200 tillable, 110 pasture. Home 7 rooms and bath. 55 stanchion barn, cleaner, bulk tank, mow elevator. 41 milkers, 49 others. 4 tractors (3 diesel), all equipment. $88,000. Wimple, Realtors, Sloansville, N.Y. 12160. Phone 518/875-6355. Dairies in 9 counties.

NEW YORK STATE Dairy Farms for sale. 200 to 600 acres. Stocked or bare. Stanchion ties or free stall barns. Some are owner financed. Chas. J. Graham Real Estate, Liverpool, N.Y. 13088. Phone 315/457-3380.

A-1 DAIRY SET-UP! Cayuga County, Syracuse minutes. 195 acres nearly all tillable! Excellent 112′ drive-thru barn with cleaner, 70′ barn for young stock, 3 silos, 2 concrete! Bulk tank, spring pond piped! 2 good dwellings, modern conveniences! $85,000 - hurry! La Rock Realty, Martville, N.Y. 13111. 315/-564-5400.

250A DAIRY - 75 stanchion barn, new Patz cleaner, pipeline, tank, etc. 3 silos, machine shed, grain storage, good 3 bedroom house - only $125,000. 100A dairy, 54 large stalls, pipeline, 2 silos, 3 bedroom house - $67,500. 240A dairy, 84 free stalls and 38 stanchion with new pipeline milker, 3 silos, heifer barn, 2 machine sheds, 4 bedroom house, 2 trailers. Excellent operation - $165,000. Try us for all sizes - 40 to 1,000 acres. Mal-Tut Real Estate, 9 Court St., Auburn, N.Y. 13021. Phone 315/253-3813.

244 ACRE DAIRY FARM, 58 stanchions, 16x50 silo with unloader. 103 acres tillable, good home, good soil. A profitable farm. $83,000. Owner must sell. Call George VanderWoude at 607/849-3907. The Cirba Company - Realtors, 680 Main St., Johnson City, N.Y. 13790.

OUTSTANDING - A 106 acre farm with 90 level, very productive, tillable acres in the Albany area. Has excellent seven room ranch house built in 1963 with 1½ baths. A very good barn with 68 stanchions, 800 gallon bulk tank, barn cleaner and silo unloader. Has two silos - one concrete. The nicest small farm we have listed. Call Zar Benedict at 914/343-1108 or write Barmann's Realty Sales, Inc., at R.D. #4, Middletown, New York 10940.

FARMS FOR SALE

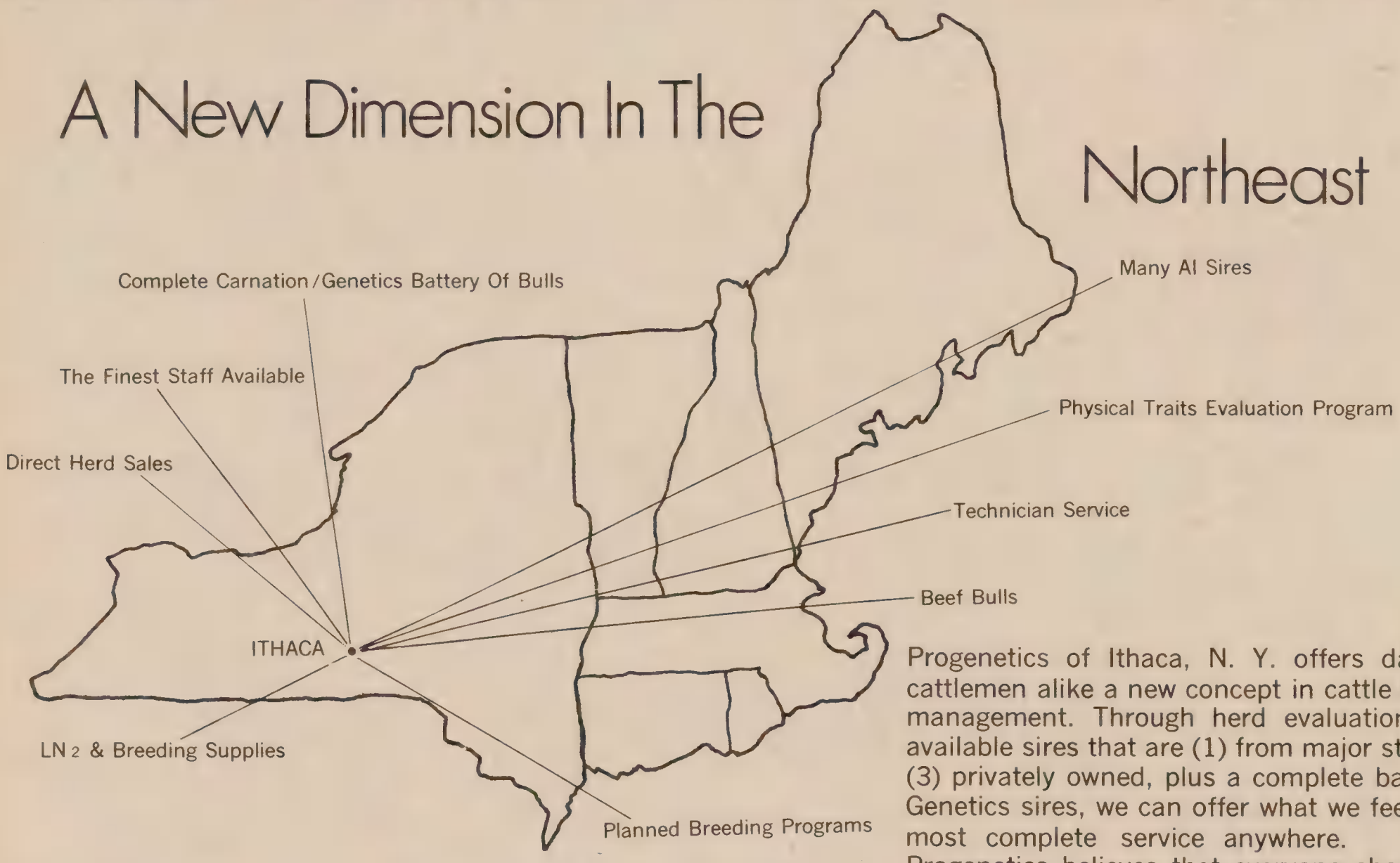
PIPELINE in excellent 78 stanchion barn, two 20x60 silos and one 16x40, 283 acres, 155 tillable, corn and alfalfa, 86 Holsteins, machine shed, heifer barn, three tractors plus all machinery, six bedroom home, well located, asking $145,000. The nicest small farm we've seen in several years - All buildings kept meticulously clean including beautiful 18 year old Georgian Colonial home, 28 comfort stalls, barn will handle more, 27 Holstein milkers, mostly registered herd, milked $23,000 last year, excellent machinery, 164 acres, 80 tilled, another 20 or so could be, very productive land, tile drained. Silo, river frontage, a very good buy at $110,000. Good 148 acre 57 stanchion operation, 2 silos, 65 head, fully equipped, nice home, good location, $95,000. 365 acres with a view, 100 tillable, 42 stanchions, 39 milkers, silo, three bedrooms, machinery, good woodlot, $84,000, $25,000 down. Bare farm with some machinery - 400 acres, well over 200 tillable, good land, 60 stanchion barn, attractive with trout stream, ideal for beef, suitable dairying, $77,000. 240 tillable acre bare farm, 53 stanchions, ready to milk, $55,000. 60 stanchion operation for the very particular - beautiful 1826 Colonial, mile of valuable river frontage, excellent buildings, 24x62 silo, 58 milkers, fully equipped, $195,000, $56,000 down, for Spring possession. 165 tillable acre, 35 cow operation stocked and equipped, $65,000. Many more including 700 tillable acre farm in Adirondack Park, 1000 acre, 136 stanchion, stocked and equipped for $220,000, small beef farms, etc. Contact Brisson Real Estate, RD 2, Massena, N.Y. 13662, 315-769-9387 or 315-764-0896.

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FARMS FOR SALE

WAYNE COUNTY DAIRY farm, 108 acres, two barns, silo, tool shed, large house with modern bath, $48,000 - with terms. Dwight Winter 315/594-2345, salesman, Brinkman Real Estate, Broker.

M133 - 50-COW river flat farm, 160+ acres, 2 houses in real good shape. Barn is handy with tank, dump station, cleaner and silo unloader. Located on State Highway and easy to work. Priced bare at $106,000 - cattle and machinery available. M131 - Best farm we have for sale - 175 cow free stall, herringbone parlor, two concrete silos and two Harvestores. Very best of corn and alfalfa land. All the roughage and grain for 200 head being grown right here. Sell bare or with over 200 head Holsteins and complete line of equipment. If you want a really top farm call us. You could hunt years to match it and it is priced right. Brandow Real Estate Corp., Stamford, N.Y. 12167. 607/652-3193 or 607/547-8218.

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MAINE DAIRY FARM - North Berwick, Attractive bare dairy farm. 95 acres (mostly corn land). Barn has 50 large comfort stalls, gutter cleaner, 2 silos. Good 10 room home. $85,000.00. Plymouth. 600 acres (150 corn land, 450 pasture and woodland). Loose housing and parlor setup with 100 Holsteins in milk on all Class I market. Full line of modern equipment. Excellent 8 room home with view. H. Earl Megquier, Farm Specialist, Lamb Agency, Realtors, 645 Forest Avenue, Portland, Maine 04101.

APPROVED DAIRY - Large 209 acre parcel! 75 tillable, 60 under plow - corn; 134 wooded. Owner reports gross of $49,000.00 from sale of dairy products last year. Barn 165x37', 77 cow ties; new silo. Colonial home 7 rooms, 4 bedrooms, 2 baths, built-in kitchen, oil H/W heat and much paneling. Extra 7-room home nearly new. Come take a look. $155,000. Strout Realty, Inc., Rt. 10, Jefferson, N.Y. 12093. 607/652-4151. Free local lists.

525 ACRES, 130 HOLSTEINS, 100 ties, full machinery, spacious home, excellent commercial location, $165,000. 285 acres, 71 ties, 3 houses, river and brook, $50,000. 130 acres, 52 ties, top barn, full machinery, good house, $48,000. Strout Realty, Malone, N.Y. 12953. Phone 518/483-7760.

FARMS OF ALL SIZES, conventional and free stall, bare and equipped. Financing arranged to fit your needs. Do you need a change? Call Farm Specialist Realty, Inc., 1116 Arsenal St., Watertown, New York 13601. Phone 315/782-2270.

CENTRAL NEW YORK dairy farm for sale. 363 acres, 250-A tillable. Excellent land, excellent location. Real nice large country home. Good barn - 87 stanchions plus room for young stock. Phone 607/674-9047.

TOP NEW YORK DAIRY Farms - 240 acres, 100 tillable, good 45-cow barn, 4 bedroom home, 18x50' concrete silo, all barn equipment included. Priced at $85,000. 600 acres, 300 tillable, three large Harvestore silos, pipeline, 90 cows, large good house. Price - $220,000, complete. Call: Richard E. Posson, Lic. R.E. Broker, R.D. #3, Norwich, N.Y. 13815. Phone 607/334-9727.

FARMS FOR RENT

LOWER COLUMBIA COUNTY, rich alfalfa soil, Connecticut market, 350 acres, reasonable. 914-698-0400.

FARMS WANTED

WANTED: DAIRY FARMS bare or stocked. Qualified buyers waiting. Paul Bouman, Salesman. Phone 914/895-2817 or Sheldon Ocko Associates, Inc. Phone 914/374-5611. P.O. Box 178, Route 17 M, New Hampton, New York 10958.

BUYERS WAITING! For good dairy farms within 250 miles of New York City. Bare or stocked. We can finance. Also, interested in recreation land, timber or development land. Make your offer now! Our company also buys direct. Barmann's Realty Sales, Inc., R. D. #4, Middletown, New York. Phone 914-343-1108.

WANTED ALL KINDS OF FARMS, vacant land and timber lots. New York and Pennsylvania locations. W. W. Werts, Real Estate, Johnson City, New York 13790.

QUALIFIED BUYERS WAITING - dairy farms, others. Wimple, Realtors, Sloansville, N.Y. 12160. 518/875-6355.

WANTED: FARMS, ACREAGE in New England. Top price paid. Send details, price: H. Brower, 20 Wachusett Road, Chestnut Hill, Mass. 02167. Phone 617/969-3461.

WE NEED ALL type farms. We specialize in farm sales and have waiting buyers! Call Richard E. Posson Real Estate, RD #3, Norwich, N.Y. 13815. 607/334-9727.

QUALIFIED BUYERS for farms, country homes, tracts land. Connecticut, Massachusetts. Robert Collester, 816 Armory St., Springfield, Mass. 01107. Established 1912.

WANTED - FARM with minimum 150 acres alfalfa soil, secluded. Under $80,000 bare. Phone 717/465-3922.

NEED FARMS with free stall or stanchion barns, operating or bare. Also, non-operating farms or acreage with houses, for horses, beef cattle. Buyers waiting. Robert S. Petzold Real Estate, Box 335, Owego, N.Y. 13827. 607/687-0541.

DAIRY FARM LISTINGS wanted. We always need farm listings, especially free stalls. We are experienced in farm selling and will call on you. Call collect - Brandow Real Estate Corp., Stamford, N.Y. 12167. 607/652-3193 or 607/547-8218.

WANTED TO RENT: Good producing dairy farm, possibly with option to buy. Write to Box #2, McDonough, N.Y. 13801.

GOING FARM WANTED: Experienced young man, farm minded family wants to buy or lease, with option, 40 to 60 cow operation. Have about $15,000 to invest, all replies answered. Could take over from retaining owner on 30 day notice. R.R. #2, Box 134, East Hampton, Conn. 06424.

WANTED: 100 - 200 ACRES corn land, near Cortland, N.Y. Buildings unimportant. Box 369-EP, Ithaca, N.Y. 14850.

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GINSENG GROWS TON ACRE, worth $35.00 pound. Details 25¢. Woods, Box 1079, Lebanon, Missouri 65536.

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HELP WANTED

FARM HELP WANTED - experienced all-around man for a dairy farm. All phases of general farm work; including cows, machinery, truck. House available. References required. I. Greenberg & Son, Rt. 206, Mt. Holley, N.J. 08060. Phone 609/267-1101.

PROFESSIONAL A.I. TECHNICIAN—Eastern is looking for qualified men who want a challenging agricultural career providing an important and needed service to dairymen in the Northeast. The job offers working out-of-doors with farm people, above average income, liberal benefits, and transportation. Write or call: Eastern A.I. Coop., Inc., Box 518, Ithaca, New York 14850. Phone (607) 272-3660.

SALESMAN WANTED - Unlimited opportunity for ambitious man to call on stockmen and dairymen selling well known products of high quality. The company is well established and has been in business for over 20 years. Selling experience and knowledge of livestock an advantage. However, this job would be very suitable for an active retired farmer. Must have suitable transportation. Work on full time basis - there is no limit to earning power in this sales position. Fringe benefits carried include Life Insurance, Hospitalization Insurance. Worth looking into! For full particulars, write to Personnel Mgr., Box 29, Waverly, New York 14892.

SALES MANAGER for dairy equipment manufacturer specializing in milking equipment. Use your skills and contacts to develop the market. Salary plus commission with extra high earning potential. Travel or relocation at your option. Will consider manufacturers representative or farmer salesman in heavy dairy areas. Interested? Send resume' to: Doug Johnson Ind., Inc., Box 21A, RD 3, Blue Ball Rd., Elkton, Md. 21921.

JOB OPENING in our Seed Processing Plant. Good advancement opportunity for a man willing to work, and learn the operation of our specialized seed cleaning equipment, receive and ship orders. Farm background preferred. Good wages, house, insurance and retirement programs. Alton L. Culver & Sons, R.D. #1, Trumansburg, N.Y. 14886.

COUPLE WANTED for farm near Asbury Park, N.J. Husband as handyman, wife to help in house couple hours daily. Furnished 3 room apartment and wages. Box 369-EO, Ithaca, N.Y. 14850.

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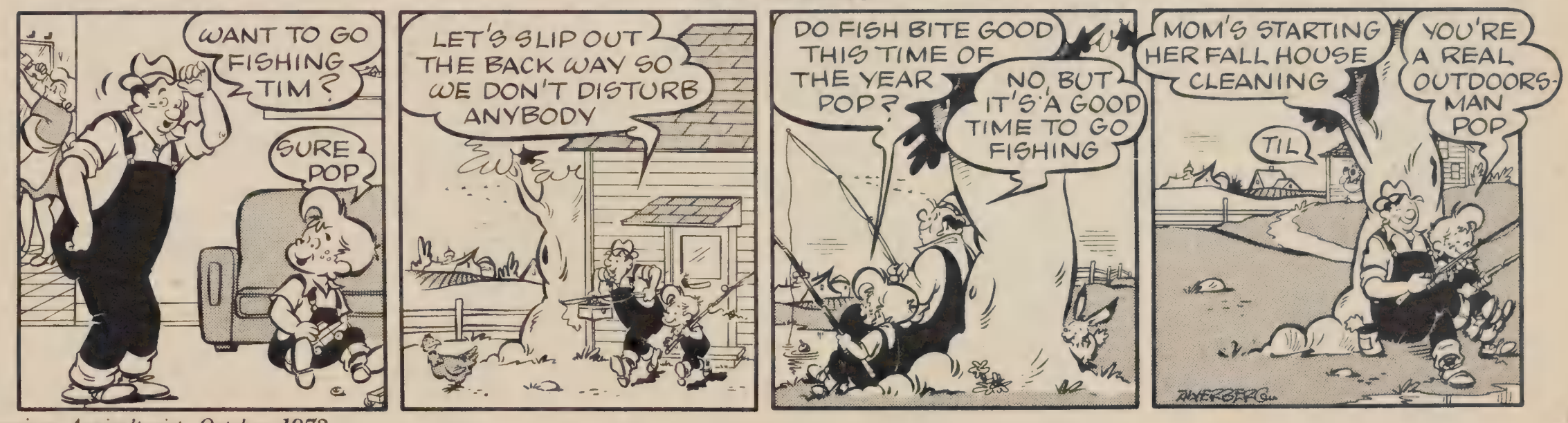
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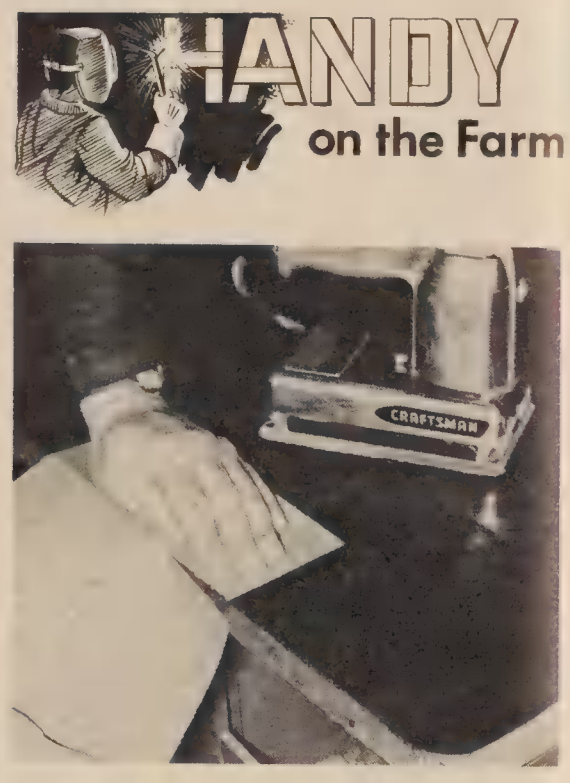
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'74 Snowmobiles

High performance, stability and rider comfort are spotlighted now at snowmobile showrooms across the Northeast. The 1974 models—with a noticeable trend to domestic engines—are ready to go. You'll see improved horsepower in harder-to-tip machines, and a raft of features that make them easier to operate. Included are padded handlebars, consoles and more adjustable slide-rail suspension with shock absorbers. Another trend: More standard equipment and fewer options. Pictured here are top-of-the-line '74 models from leading snowmobile manufacturers.



Above: John Deere announces the 400cc JDX-6 (left) and the 292cc model 300, featuring weight-transfer, slide-rail suspension.





Above: Arctic Cat's Panther 292, one of four Panther models, has a Wankel engine and shock-dampered skis.

Left: The Super Stinger 440 from **Scorpion,** powered by a 434cc engine, features Para-Rail suspension.

At right: Ski-Doo announces nine T'NT models, featuring square-shaft clutch design and self-adjusting disc brakes.

Below: The '74 **Polaris** Colt is available in three Star engine sizes—the 175cc, 244cc and 294cc.





Above: Mercury's 440 Max has both a bogie and a slide suspension and skis with torsion-bar suspension.





Above: The Futura from **Moto-Ski** is available with three BSE engine options, ranging from 295 to 440ccs.



Above: Johnson's new JX 650cc is lightweight, seats two and comes with alternate firing twin cylinders.



Above: Sno-Jet's Sabre Jet, one of six Big Blue models, has a 440cc engine, Multiflex II suspension and tachometer and speedometer.

Sizing up soybeans

by Earl Ainsworth

FARMERS aren't afraid to try something new. So it is with growing soybeans this year . . . new to most northeastern farmers. You might call it "the year of the bean." There's a lot of experimentation; ten acres here, ten there. The sharp increase in acreage devoted to this crop, and the generally good growing season we've had, indicate that more than the usual number of farmers will have soybeans on their hands this fall.

So now that you've got the beans, what'll you **do** with them? Should you sell them and buy some other form of concentrate, or should you feed them? When does selling become more attractive than feeding? If you feed your soybeans, should they be raw or cooked?

Market

Watch the market. Memories of five-dollar wheat are sufficient to educate most farmers to the fact that the market can steal an item from a cow's menu. A lot of wheat originally slated for the mixer wagon or grist have been sold for other purposes when it became more profitable to sell . . . and buy something else for making milk. As of August 3, about 496 million bushels of U. S. soybeans were firmly committed for export, and that figure has surely gone up since then. Maybe soybeans will end up like the wheat . . . worth too much to feed!

Seized by one spasm after another, the commodity market is even more unpredictable than before, so we can't tell you what you should get for a bushel of soybeans. Nonetheless, you can do some simple arithmetic using market prices for shelled corn and soybean oil meal to get a fix on what whole soybeans should sell for.

Take the current price for a ton of shelled corn, say $100 for easy arithmetic, and multiply it by a "constant" of .352 developed by the late Prof. Frank Morrison of Cornell University as a feed-evaluation index for comparison purposes. The result is $35.20 in this case. Then find out the current price for a ton of soybean oil meal and multiply by .746, Morrison's "constant" for that feedstuff. If soybean oil meal is selling for $300, for example, then $223.80 is the product of that mathematical exercise.

Add the two figures you got ($35.20 plus $223.80), and you'll get $259. Since there are 33⅓ bushels of soybeans per ton (60 pounds per bushel), divide the $259 by 33⅓ to get the feeding value per bushel. Using the figures in the example, John Doe should get around $7.77 for a bushel of soybeans at 14-percent moisture. Higher-moisture beans will likely get docked, since more moisture will be lost when processing wetter beans.

If beans are selling for **more** than $7.77 per bushel, it makes sense to sell 'em on the market and buy corn and soybean oil meal to feed. Likewise, with the price relationships in the example, it's good judgment to feed your own beans if they are selling for **less** than $7.77 in the market.

The farmer who feeds his soybeans finds they've always had a good reputation, whether fed raw or cooked. For years, raw soybeans have been fed to dairy animals with success as long as they are blended with something.

The raw bean, however, contains an enzyme called urease and therefore prohibits using urea in the ration. Past research indicates that as much as 250 pounds of raw soybeans can be included in a ton of ration. Don't use raw soybeans for hogs, chickens, or other non-ruminants because they can't digest the protein in raw beans very well, and have difficulty handling some enzymes also present. Of course, cooking inactivates the enzymes and takes the curse off the bean completely . . . you can even put some in your meat loaf!

Raw

Seneca Falls, New York dairyman Pete Schuster has fed raw soybeans in his ration for years; that is, until this past spring when "the price of soybeans got so high I couldn't see grinding them for feed." He still feeds some to his calves and heifers, because they didn't look as good as I like to see them."

Pete contends that raw soybeans put a nice finish on his young cattle that he can't get from other feeds, and so he plans to continue feeding about 200 pounds of raw beans ground into a ton of ration. "For the cows, it'll probably be liquid protein supplement topdressed on corn silage."

He finds he can profit most by growing good certified and registered soybean seed. At $10.50 per bushel for registered seed, and $11.50 for certified, you can't blame him! In 1973, Pete planted 40 acres.

Northeastern farmers who intend to feed their soybeans seem to fall more into the cooked-bean category than the raw. These folks are really sold on cooked soybeans. Take Jim Baker and Earl Eaton, for example.

Jim is a veteran soybean man, having raised and fed his own soybeans for some seven years now. He started to raise soybeans in 1966 on his farm near Ithaca, New York . . . at a time when he had just bought a feed grinder to start a campaign for cutting purchased feed costs. Information on soybean culture wasn't too plentiful in dairy circles back then, but Jim went ahead and planted eight acres anyway. To his surprise, they yielded well over 40 bushels per acre!

He ground some into his feed that winter, and was more than satisfied that the cows were producing well and having fewer health problems. Now Jim cooks his beans with his Brady Crop Cooker, and likes them even better. This machine classifies as an extruder . . . creating cooking heat in the process of forcing the beans (extruding them) through small holes. Some equipment cooks the whole bean without breaking it up as an extruder does.

"I can harvest my beans at 17 or 18-percent moisture if I have to, and they still keep in the granary," he explains. The Bakers cook beans every couple weeks the year around. A good-looking 50-acre crop is promising a good yield for Jim this year.

If Jim Baker is a veteran, Earl Eaton of Waterloo, New York, is a rookie but a successful one. "For the past few years, we did all the right things, but the cows still weren't producing as they should," he recalls. "Then last year I grew some soybeans and rented a Brady extruder and cooked all of them at once. The cows just about tore down the stanchions to get at the soybeans."

Increase

Earl's rolling herd average increased 2,398 pounds per cow after he started feeding cooked soybeans and his butterfat increased 59 pounds per cow, both record increases for DHIC in Wayne County, New York. Earl fed hay, high-moisture ear corn, and a grain ration of oats, distillers grains, and cooked soybeans.

Instead of storing his beans and cooking from time to time, Earl set up a system for cooling his extruded beans and packing them into boxes (originally designed for shipping red kidney beans) which hold about 28 bushels each. By airdropping the beans from as much height as possible from the extruder, and then running them up a 45-foot auger to be airdropped into a forage wagon and then packaged, he managed to get the cooling action needed to process ten tons of soybeans in 14 hours.

Earl bought his own cooker this year and plans to do custom work after his corn is harvested. He comments, "The thing that impresses me the most about cooked soybeans is the way my cows go after them." He contends that a high producer who might have rejected that extra ten pounds of feed with urea in it welcomes all the ration she can get containing cooked soybeans.

The cooked beans, although kept from December to May, didn't spoil.

(Continued on page 66)



County agent Jesse Hannan and dairyman Pete Schuster examine a healthy stand of Harosoy.



Jim Baker's waist-high crop of Amsoy should yield 40 bushels per acre this year.

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Yep. We've got a bundle of new ideas again, this year. Like the Cat's exclusive, float-type carb. And zip-start circuit.

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Much about beans

West Henrietta farmer John Tirabassi hosted New York's second Dry Bean Field Day recently. The healthy turnout underscored this crop's growing importance in the Northeast.

Among the topics discussed was defoliation. Researchers are again seeking possible defoliating substances that will not be prohibitive in cost. This time they are turning to some sister crops for assistance.

Bean combines commanded considerable attention at this year's field day.

The most promising candidate is Evik, a potato-vine dessicant that will defoliate a crop of dry beans for a material cost of about $3.50 per acre. Ethrel, a fruit ripener, is also effective on beans when properly applied, but runs into the bracket of $6 to $7 per acre. Neither of these materials is labeled for use as a bean defoliant.

Nitrogen

Farmers are defoliating dry beans with nitrogen . . . either ammonium nitrate fertilizer in solution, or liquid nitrogen fertilizer. Sixty pounds to the acre does the job.

A few things about herbicides were reported by college specialists this year. Some crop injury was evident in all test-plot treatments of beans where Amiben, Preforan, Lasso and Bromex were used alone or in combination. Many of these straightened out satisfactorily later on, however.

Eptam alone did not give acceptable control of redroot pigweed this year because of its high solubility coupled with heavy rains; a combination of Eptam and Treflan gave better control than either chemical used alone.

Ag engineer Carl Winkelblech reported that subsoiling when fitting bean ground makes for better aeration and drainage, and therefore less rootrot and healthier plants.

Work is being done on a new red kidney variety that is resistant to halo blight and mosaic, but being plagued by common blight at present. Roger Sandsted is trying some varieties from all over the country to find out how they'll do here.

If anything were to be said about planting, it would be "plant early," but we all know how meaningless that advice is in a spring like we had in 1973!

Price prospects for the '73 crop look excellent.



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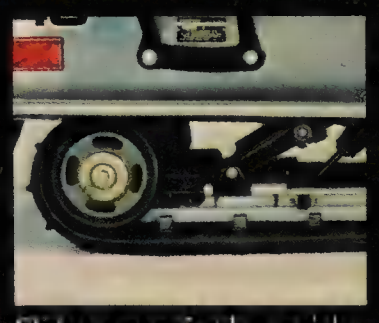
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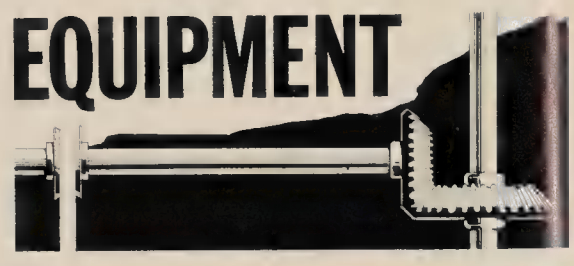
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Snow Patrol – A National Snowmobile Patrol will offer first aid, on-trail maintenance, and search and rescue services in at least 32 states with some 100,000 members this winter. The group also hopes to clear up snowmobiling's rather dubious reputation, brought about by a few "bad actors" among the thousands of responsible citizens using the machines.

The Patrol got its start . . . and an excellent reputation . . . in New York's Lake George area last winter. Work of the members is voluntary, and there will be no charge for their services to the snowmobiling public. For full information, write: Jack Baker, Director, National Snowmobile Patrol, Box 163A, Lake Shore Drive, Lake George, New York 12845.

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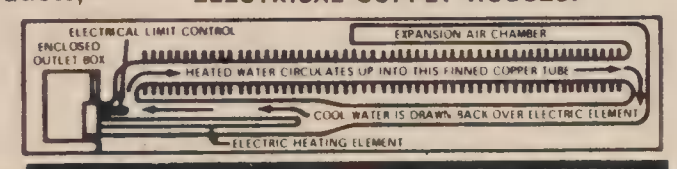
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GARDEN TALK



by George and Katy Abraham

Hanging Basket Care

Now that you've had good mileage from your hanging basket, can you do anything about it for next year's show? Usually, most of the plants in your basket are expendable, meaning you've had good performance from them and the plants can be discarded.

You don't have to discard them, however. You can take your ferns out of the basket and pot them in 5 or 6-inch pots. Use a soil mixture of one part each of soil, peat and loam and grow them in your kitchen or on your sun porch all winter. Fuchsias can be cut back one half, repotted and grown as house plants for the winter.

Discard items such as petunias and lantana, but keep impatiens and coleus. The last two items can be pinched back and new cuttings started. Meanwhile the parent plants can be nursed along for winter show. Some people shear their hanging baskets way back, one half or more, and continue to grow them on their sun porch or in a kitchen window. Usually one year is about all you can get from the basket.

Incidentally, if you are tired of mopping up after watering your hanging basket, try this easy method of watering. Place several ice cubes in the pot and allow them to melt. In a home, this saves messy spills when pots are hanging overhead. Never let your hanging basket dry out completely and feed a weak solution of a liquid plant food such as 23-19-17 once a week or so.

Rex Begonias

You'll have to go some to beat the beauty of this group of begonias. The Rex group is large and beautifully textured, with thick leaves that are multi-colored. Grown for its handsome foliage and not for flowers, the Rex group is one of the easiest to care for.

The plant likes equal parts of loam, humus and sand. Keep the soil uniformly moistened at all times. A day temperature of 70 to 72 degrees and a night temperature of 65 to 70 degrees is best. Feed the plants a soluble plant food once a month until late fall when the plant has a period of dormancy and can be watered more sparingly.

In spring set the plant outdoors in semishade and keep it well watered, or grow it on the sun porch. You can start new plants by taking 2-inch leaf cuttings and placing them in water or moist sand. You can also cut the leaf into triangular pieces, each with a part of the main vein running down the center to the point of the triangle.

Insert the points one half inch deep in moist sand. Or you can take a leaf with a piece of the stem and make small cuts across the back, over the main veins. Insert the stem into moist sand so the leaf rests cut side down on the sand. Take a hair pin and fasten the leaf down against the sand. New plants will develop at the cuts.

Drying Flowers

If you grew your own statice, strawflowers, celosia (cockscomb) and other "everlasting" flowers, dry these by hanging them upside down in the garage. You can also gather goldenrod and many other weeds from the meadows and fields. Gather weeds, pods, cones and wild flowers and get your children interested in working with dried materials for winter bouquets.

Peruvian Daffodils

Don't forget to dig up your Peruvian Daffodil bulbs before they freeze. Store them in the hottest room in your cellar. Cool storage prevents or delays blooming next year. Other names for Peruvian Daffodils include spider lily, ismene and hymenocallis.

Old Fashioned Apples

Recently we mentioned the renewed interest in growing the old fashioned varieties of apples in the backyard. We received more than 700 letters from AA readers asking us for further information on growing and selecting the old varieties.

In a nutshell, many of the "fine old varieties" disappeared, since they were suitable only for home planting. They had to give way to modern varieties, which must have the following attributes . . . productivity, attractiveness, ease of handling, disease resistance, good keeping qualities and dual usefulness (for desserts and processing). Many nurserymen are again listing old fashioned varieties in their catalogs, and you may want to consider growing some next year.

AA Garden Clinic

A reader writes, "Please tell me how to store sweet potatoes for the winter. We did the impossible and raised a big crop of them."

Answer — After curing, move them to a cool part of the cellar. They need a warm soil for growing but prefer a cool storage cellar if possible.



GEESE STOPPING OVER

by Inez George Gridley

A torrent of birds
Spilled out of the sky
Poured on the bright water.
Silent the last raucous cry,
Quiet
Except for a few soft settling-down words.

American Agriculturist, October, 1973

Good Eating with Ground Meat

by Charlotte Bruce

As a busy cook who must buy all the meat the family consumes, I find myself more appreciative than ever of ground meats. Rising prices have a great deal to do with this attitude, but even when price is not a factor, the variety of dishes possible with ground meats and their speed of preparation are important considerations to the cook.

Ground beef is usually available in three price ranges — ground beef (or hamburger), the cheapest and therefore containing the most fat; ground chuck, the next step up the price ladder though often the most economical choice in the long run; and finally ground round, which might be the choice of a determined calorie counter.

Now, in many markets, beef patty mixes are added to these choices. These are a combination of ground beef and textured soy protein. The price is under that of ground beef or hamburger, and the cooked product is quite acceptable.

Here are some menu ideas for these busy fall days when outdoor work or play cuts into kitchen time. Most cooks have favorite recipes (or ingrained habits) regarding the production of the All-American hamburger. For variety's sake, here is a recipe for an open-faced hamburger that adults particularly enjoy — and the children never seem to notice that it doesn't have a "top." If they should ask for a top on their sandwich, it is easy enough to cap the burger with a bun half. Note please that each sandwich requires only half a bun (fewer calories, lower cost!).

OPEN FACED HAMBURGERS

1¼ lbs. ground chuck
⅓ cup milk
2 tablespoons grated onion
1½ teaspoons salt
¼ teaspoon black pepper
1 tablespoon Worcestershire sauce
2 tablespoons catsup

Combine all ingredients, using a fork. Divide the mixture in 12 portions. Split six buns and spread each half with soft butter or margarine and then a light film of mustard.

Spread meat mixture on bun half, being careful to have meat cover bun to the edge. This much preparation can be done several hours ahead and the burgers then refrigerated.

At serving time, place burgers on broiler rack. Broil 5 to 7 minutes, depending on desired degree of doneness. Serve immediately.

Note: If you make a poor estimate of how many burgers will be eaten, uncooked burgers can be frozen and used later; they should be thawed in the refrigerator before broiling.

A Good Stand-by

Over the years, every cook develops recipes that fall into the "old reliable" category. This pilaf has become just that because of its taste, flexibility and economy.

Pilaf is a general term like "stew" or "soup" and originated in the area of the world where cooking methods, income and preference dictate the use of lots of cereal grain, little meat and open-fire cookery. The basic ingredients of a pilaf are some type of cereal grain such as rice, bulgar wheat or pearled barley; fat of some type; liquid, which might be plain water, stock, bouillon or tomato juice; and seasonings, which would certainly include salt, maybe onions and hopefully some herbs.



Photo: National Live Stock & Meat Board

With this Scalloped Sausage and Cabbage Combo, serve a molded Fruit-Gingerale Salad, toasted buns and Pound Cake with strawberries and whipped cream.

Finally, the pilaf should contain some meat; the amount will be in direct proportion to the size of your food budget. It might be only enough for flavor, but if you are lucky, it will be more. It might be fresh meat or leftovers; it could be fowl, beef or pork.

The method of preparing a pilaf is to put raw cereal grain into the cooking container. This container can be anything, as long as it is heavy (for use over fire) or has a low heat setting if electrical. It must also have a tight-fitting lid. It might be an electric skillet, a beautiful, expensive casserole, or a smoky but treasured cast iron skillet with an improvised foil lid, used over a campfire.

There must be melted fat in the container, and this can be the fat exuded from the cooking of fresh meat, or it can be solid fat or oil, used if leftover meat is to be added. The dry cereal grain is stirred around in the fat until each grain is coated; then liquid in the proportion of two to one, liquid to grain, is added. Seasonings are put in, and the dish is covered and allowed to simmer until the grain is tender and has absorbed all the liquid.

Of course, you need to check to make certain the mixture does not run out of liquid before the grain is tender; sometimes the grain is tender and more liquid remains than you'd like, so you simply remove the cover and allow the moisture to escape.

Try this version of pilaf and later make up other combinations such as rice, ham cubes, pineapple chunks and juice; or chicken, rice, celery and raisins with chicken stock.

HAMBURGER PILAF

2 tablespoons fat
1 small onion, chopped
1 lb. ground beef
1 cup uncooked enriched rice
1½ teaspoons salt
½ teaspoon dill weed
2 cups beef stock or bouillon

Heat fat in skillet. Add chopped onion and sauté until transparent. Add ground beef and sauté until brown. Add rice and stir until grains are coated with fat. Place sautéed onions and beef with rice in casserole, or leave in skillet if it is a heavy one with a tight lid. Add seasonings and liquid, making certain rice grains are all submerged.

Cover and bake in a moderate oven, 350° F., for about 40 minutes, or until rice has absorbed all the liquid. The pilaf may also be finished in electric skillet or on top of stove. If this method is used, set heat low, so it barely simmers and check frequently to make certain it doesn't cook dry.

Other Variations

Ground pork in its many forms offers a variety of possibilities too. I think you'll like this casserole.

SCALLOPED SAUSAGE AND CABBAGE

1½ pounds pork sausage links
2 tablespoons water
1½ pounds (8 cups) finely cut cabbage
¼ cup butter or margarine
1½ teaspoons salt
¼ cup flour
2 cups milk
¼ cup chopped green pepper
1 tablespoon butter or margarine
½ cup dry bread crumbs

Grease a 2-quart casserole. Place sausage links and water in cold frying pan. Cover tightly and cook slowly 5 minutes. Remove cover and lightly brown links. Pour off drippings. Cook cabbage in boiling salted water 5 minutes and drain.

Melt ¼ cup butter or margarine and blend in salt and flour. Add milk. Cook until thick, stirring constantly. Add green pepper.

Place half the cabbage in bottom of casserole and arrange half of the sausage links on top of cabbage. Pour over half of the sauce mixture. Repeat layers with sauce, topping with sausage links. Melt 1 tablespoon butter or margarine and mix with crumbs. Sprinkle crumbs around edge of casserole. Bake in moderate oven (350° F.) for 30 minutes. Serves 4 to 6.

Autumn Menu

On a chilly evening, try this menu —

Sausage patties or links
Fried apples
Buttered broccoli
Corn muffins
Old-fashioned bread pudding

Start the sausage first, so you may use the tasty drippings for sautéeing the apples. To prepare fried apples, select a variety that does not become mushy while cooking. Cortlands, Northern Spies or Ida Reds would be good choices. Allow at least one apple per person. Prepare apples by coring and slicing, but do not peel them. The peel helps hold slices together and provides a tasty preparation short cut.

Put about 2 tablespoons of drippings into a large heavy skillet, allowing plenty of room for apples, so they cook rather quickly. Add apples and check them frequently, stirring with care. Use a pancake turner to go under the mass of apples and turn them. After they are browned and tender, sprinkle with brown sugar and salt to taste.

Bread pudding has an unfortunate reputation with some people, especially children. Usually, it has been gained in institutional cafeterias where the emphasis is on "bread" and not on "pudding." Try this version and help win friends for bread pudding.

BREAD PUDDING

4 slices buttered toast
⅓ cup seedless raisins
2 slightly beaten eggs
¼ cup sugar
⅛ teaspoon salt
1 cup undiluted evaporated milk
1 cup boiling water
1 teaspoon vanilla
4 teaspoons sugar
¼ teaspoon cinnamon

Cut buttered toast slices in quarters. Place in 1½-quart baking dish. Sprinkle raisins over toast. Combine eggs, sugar, salt, milk, water and vanilla. Pour over toast and raisins and allow to stand 10 minutes. Then combine 4 teaspoons sugar and cinnamon and sprinkle over mixture.

Bake in 350° F. oven for 30 minutes, or until knife inserted in center comes out clean. Makes 4 servings.

From England

Another satisfying dish for a chilly evening or for breakfast guests is Toad-in-the-Hole. This recipe is an American version of an old English stand-by. It is traditionally made in England with chunks of leftover roast beef; the batter is the same as that used for Yorkshire pudding.

The addition of butter and syrup at serving time would probably

(Continued on page 66)

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Vacationers stroll near a portion of the city wall which surrounds old San Juan in Puerto Rico.

Come with us to the

Sunny Caribbean

What will be your first vacation trip in 1974? We at American Agriculturist and Travel Service Bureau cordially invite you to join us for a cruise to the sunny Caribbean from **February 20 to March 5,** aboard the Italian Line's luxurious **SS Michelangelo.** You'll loll ... and splash ... and eat ... and tan; you'll anchor in exotic harbors, shop for duty-free bargains, and gaze at the starriest skies in the world! And you'll love every minute of it!

Again this year, you can join our cruise party at either New York or Port Everglades, Florida. If you're spending the winter in the Sunshine State, this will be most appealing, we're sure. The Michelangelo has everything you could possibly want on a cruise ship — air conditioning throughout, six swimming pools, smart and spacious staterooms, beautiful lounges, marvelous food and acres of broad, sunny deck space.

Your tour escort will look after you from start to finish, so you'll have no travel worries of any kind. Those of you who have ever traveled with American Agriculturist and Travel Service Bureau know it's the nicest way in the world to take a vacation.

Five Ports of Call

Our first port of call is **San Juan, Puerto Rico.** Sightseeing in and near the capital city will include a tour to El Yunque Rain Forest with its jungle-like tropical vegetation, wild orchids and waterfalls, a visit to magnificent Luquillo Beach, and a drive through San Juan to see the historical landmarks of the Old Town, Santurce's residential section and the University of Puerto Rico's beautiful campus.

The capital city of **St. Thomas** is Charlotte Amalie, a happy, carefree little town of great charm. It has wonderful shops and as cosmopolitan a population as you'll find anywhere. We'll see 300-year-old Bluebeard's Castle, Drake's Seat and Mountain Top with its breathtaking view of the many nearby islands.

You'll find a contrast of foreign flavors on **St. Maarten,** for flags of both France and the Netherlands fly over this snug little island. So far it has escaped the excessive commercialism found on some of the other islands, and you'll greatly enjoy its loveliness ... roads meandering through steep, grassy hills, beautiful views of the sea with other islands on the horizon and little villages nestled in the valleys.

Curacao was first settled by the Dutch in 1634, and the island remains distinctly Netherlands in character and architecture. Willemstad is a charming town of rainbow-hued buildings, and the city is divided into two sections by the famous Queen Emma pontoon bridge that swings open to let ships pass in and out of the harbor.

Jamaica, known as the land of eternal spring, is matchlessly beautiful, with many miles of long beaches and a mountainous interior reaching toward the skies. **Montego Bay,** on the north shore, is our port of call. We'll drive through the main shopping and commercial districts and through several of the delightful residential areas. We'll also see the huge 32-foot waterwheel at the Tryall Ranch.

Fill out the coupon, mail it today, and start making plans to join us in February. Your all-expense ticket covers everything — all meals and tips aboard ship, escort service, deck chairs and shore excursions. You'll have nothing to do but relax and enjoy every minute of your vacation.

Thanksgiving in Bermuda

There is still time to join our Thanksgiving in Bermuda tour, **flying from New York on November 19 and returning the 24th.** Our hotel is the world-famous Princess, located just a few minutes' walk from the marvelous shops of Hamilton. With the traditional turkey dinner, it will certainly be one of the most unforgettable Thanksgivings you have spent.

While you're in Bermuda, your tour escort will make arrangements for whatever activities appeal to you — maybe a cruise to Treasure Island with a barbeque lunch and calypso entertainment and a sightseeing drive to St. George with stops at Devil's Hole, the aquarium, Lili perfume factory and Gun Powder Cavern. And, of course, you can sun and swim at the Pool Terrace or at the Princess Beach Club where natural coral rock formations surround a velvety-soft sand beach.

Meet Us In Cooperstown

Travel Service Bureau and American Agriculturist would love to see all of you at our **Get Acquainted and Reunion Mixer Weekend** at the charming Otesaga Hotel, **October 19-21.** The Otesaga is noted for its hospitality, delicious meals and colorful, comfortable accommodations.

Cooperstown is known as the "Village of Museums," and there are many interesting places to visit. Then, of course, there'll be travel films, slide shows, prizes from around the world and a preview of our complete tour-cruise program for 1974.

Whether or not you've ever traveled with us, we're sure you'll enjoy this weekend of relaxation, good food and good fellowship. Make your reservations today!

Gordon Conklin, Editor
Box 370-T
Ithaca, New York 14850

Please send me without obligation on my part, the following tour itineraries:

Thanksgiving in Bermuda_____ Reunion Weekend_____
Caribbean Cruise _____

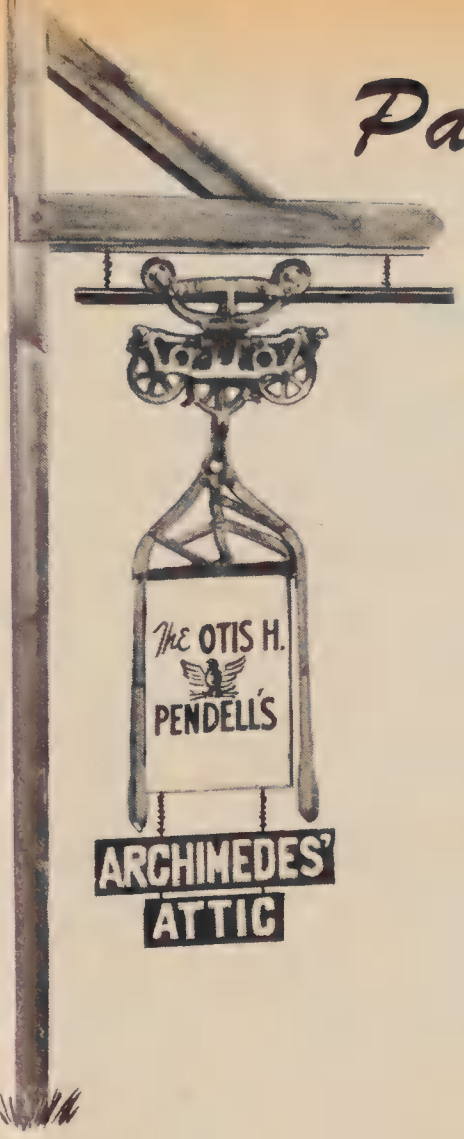
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ONE-ACT PLAYS!

Three Cheers For Woody
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Out of the Night
To Count Thirteen
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Christmas on the Farm
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Pay a visit to ARCHIMEDES' ATTIC

by Augusta Chapman

Remember how you enjoyed "playing store" when you were a kid? I hadn't thought about it for years until my husband and I visited Archimedes' Attic near Marathon, New York, and saw the delightful collection of old and new articles for sale in the small two-story building that used to be a granary. Not that Pat Pendell, "Shopkeeper," is just playing store — she is seriously in business, and what fun it must be!

The Attic is just across the driveway from the beautiful 113-year-old home Otis and Pat Pendell have owned for 16 years. They had often talked about doing something with the granary and had even drawn up plans of sorts several times, but had never gone any farther.

Then one night in late September 1972, Pat put new plans in front of Otis' plate when he sat down for dinner. He looked them over and after he had eaten, went out and jacked up one side of the building that was two feet lower than the others. And with that, they were on their way! About two months later, everything was ready, and on December 2, Archimedes' Attic opened for business.

There is so much to see that you can spend a couple hours in the store and still find things you hadn't noticed before. I hope to whet your appetite enough so you'll make a trip to Archimedes' Attic if you're in the area. It's located on Killawog Creek Road, about 1½ miles west of Killawog (which is on Route 11, 3 miles south of Marathon). During the fall and winter, the Attic will be open from 10 to 5 daily, except on Mondays.

Attic Originals

One thing you won't find in Archimedes' Attic is a "Made in Japan" label. Everything is made in this country and most articles, within a radius of 50 miles.

Pat is an accomplished seamstress, and there are many of her creations — lovely fabric and crocheted bags, darling little girls' dresses, complete with panties and sunbonnets, both long and short skirts, aprons and the cutest stuffed mice! Eight mice were made for opening day. There was such a demand for them that when I visited in June, the count was 142! Otis says Pat works on a mouse while she's under the hair dryer, watching television and whenever she can find a spare moment.

Also, the Pendells were fortunate to find several craftsmen in the area who supply them with handmade specialties. One woman furnishes hand-loomed rugs and place mats and a relative makes pillows; oil paintings done by a local artist adorn the walls, and John Forshee (90 years young) of Cincinnatus, New York, makes tinware. He uses the same tools as his father did in the early 1800's. Some tin pieces made by Mr. Forshee's father are on display.

Pat Bergen Pendell grew up on a farm near Flemington, New Jersey, and her mother was a real antique enthusiast. Pat used to take Mrs. Bergen all around the country to auctions and antique stores. The knowledge she gained during those years has proved most valuable in choosing the pieces for Archimedes' Attic.

Not For Any Price!

In addition to the antiques with price tags attached, there are some items not for sale. Among these are an apple peeler which is 150 years old and still works perfectly and crocks made in many cities and villages of central New York, including one made by the first potter to settle in Cortland County. There's also a toy cannon which was the one plaything Otis' great-great-great grandfather was allowed to bring when he came to this country from Germany at the age of seven.

You will find, too, many of the usual "country store" things in Archimedes' Attic — stick candy, note paper, soap, candles and delicious New York cheddar cheese. Then, upstairs is the "Poken' Trunk" with all kinds of small treasures for you to examine. At first Pat sold the soap (cinnamon, orange, lemon and strawberry scented) by the pound, but no one bought it. She tried cutting it in chunks, and now it's one of her most popular items.

I asked why the name "Archimedes' Attic" had been chosen, wondering if there was some connection with the ancient Greek mathematician and physicist, but learned it was named for a man who lived far more recently, Archimedes Sessions who built the house and granary. In 1860, he built the house, two barns and a chicken house for $3000. He paid $100 a year on the $2000 mortgage!

Boys Included Too

Kevin and Brian Pendell, ages 11 and 10 years, beamed with pride as their parents showed Walt and me around the shop and as we all sat on the porch afterwards enjoying iced tea and homemade soft, molasses cookies. The Attic is a family project, and each member seems to be thoroughly enjoying it. Apparently, the boys didn't even mind too much that the family camper sets in the back yard and wasn't used this past summer.

Many people visited the Attic last year when places open only during the summer were closed. Maybe you'll also want to stop there when you're out for a drive some pretty day this fall. By then, Pat will have a host of new items in stock for the Holiday Season, and there'll be more to see than ever!

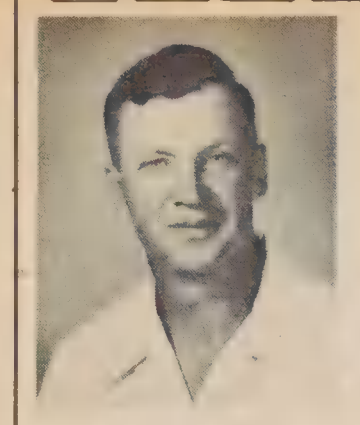


How many things there are to look at in the store and how many memories will be recalled as you browse upstairs and down!

The Pendell family poses in front of Archimedes' Attic.



The old photograph still plays! Some of Pat's "attic originals" hang from the beams and in the lower right hand corner, you can see the "Poken' Trunk."



Farm News, Notes and Nonsense

by Harold Hawley,
Weedsport, New York

THROW THE BOOK AWAY!

The old saying tells us that experience is the best teacher. Most of us would buy this, but there are times when it "ain't necessarily so."

Many farmers and others who went through and were hurt by the great depression of the 30's were influenced in their business decisions for many years thereafter by the costly and painful experiences they had during those years. As it turned out, what with wars and/or prosperity and inflation, those who were unduly conservative as a result of experience were a little wrong. The guy who had not yet got burned and was therefore a little more optimistic in his approach to his business decisions, invested and expanded and profited more than his more conservative neighbors. So much for the past and its lessons, if any.

It seems now that it's a whole new ballgame with a minimum of experience to guide any of us. When wheat got to $2.50 or thereabouts, which was about at the upper limits of price experience for most people, it seemed like just ordinary good sense to cash at least part of the crop. Certainly there was nothing in the past to suggest that much additional increase could be expected.

Or who could guess that when a cull dairy cow would bring $500 she might still be worth keeping awhile longer?

It might even be safe to say that the limit of visibility of most crystal balls stopped somewhat short of the actual rise in interest rates. Borrowers and lenders alike misjudged this one just as badly as in the other areas.

Outlandish

Outlandish prices paid for real estate of all kinds which sounded crazy at the time now begin to look like real smart deals.

Each of us, regardless of age, experience or background, suddenly finds that we are afloat on an uncharted sea without a compass and must "fly by the seat of our pants." It's not even all that fruitful to try to explain the causes of all this price rise and uncertainty. Sure, one can talk about speculation over price control and freeze regulation changes, big export demand for some commodities, etc. What one can't evaluate is the psychology of the people.

It's one thing to say there is an adequate supply of something under normal conditions. It's something else again to guess whether others will think there is a shortage, or that there may be a scarcity. If any pinch is expected, that feeling will be translated into higher prices in short order . . . either by people holding back the supply for later price increases, or by people exerting unusual pressure to buy before the expected rises. Many just buy to beat the hoarders to it.

Those few who correctly guess coming events under these conditions have unusual profit opportunities. Coming to the right decision soon enough can also save some horrendous losses because some of the price declines that will come one day may be just as dramatic as some of the advances we are currently witnessing. The man who can play the game successfully under these deuces-wild rules is, as Rudyard Kipling said, "a better man than I, Gunga Din."

ONCE IN A LIFETIME

It's not quite true anymore with farm size expanding, but generally most farmers make a decision to buy a farm, a home, and an operating base about once. They may keep adding to it but at least that first choice establishes the pattern.

Equally true is the liquidation process. A few farmers for various reasons sell out and buy elsewhere and continue to operate as farmers. A healthy segment of the industry does the selling at the end of the productive years. Like anything else that one does once or seldom, most farmers lack expertise in accomplishing this pretty important economic transaction.

We would be the last to claim to have found all the answers but anyone who has been through this thing learns a few things (some the hard way). This year we have been doing a little at listing and selling farms and a few things become quite clear.

First and most important is that all too few farmers know what their property is worth — or will bring. A man who has farmed a place awhile may pretty well know what he would give for such a farm, but the market may be much above that. It seems a real tragedy for a family to sell a place for a lot less than they could get.

Misleading

It's easy to get misled on this one. An appraisal by a bank or by an appraisal firm may be a little conservative but should at least reflect the earning potential, the real value of the farm. Fine — but that may be a long way short of today's market.

I've heard some farmers say that a real estate salesman or broker suggested a certain figure he could get for the farm. This figure may or may not be the one to use. Anyone can sell a farm if it is priced reasonably enough. Not all salesmen care about the extra effort that may be involved to get the last $10,000 out of a farm. They can make more money on quick sales even at a little lower price and less commission per sale.

It's important enough so that it will make most farmers some right good wages to spend a little time to find what other farms are bringing and to get the opinion of several people before they put a price on their property.

Another little thing that can increase the return to the seller is a bit of negotiating with the real estate people. A flat percentage commission regardless of the size of the deal is for the birds. Likewise, even farms of similar size should be sold for varying commissions because some neat, well arranged, modern farms can be sold with a minimum of effort; others take a lot of pushing. No farmer who would dicker over the price of a cow or the terms of a machinery deal can afford to go along with the first offer of the real estate man as to what his commission will be.

Spell It Out

A couple of other obvious things pop up so often. If substantial agreement is reached on terms of sale, get to a lawyer, get a sales agreement signed, a down payment made and know the job is done. Boy, this trying to do business on an oral agreement basis just doesn't work out! Spell out what goes with the deal and what doesn't. It will save some headaches later.

Almost as important as any of the above is to get to see a good tax man. I stress this rather than a lawyer before you get to this point. Find out what your tax liabilities and options are so you can try to sell under the kinds of terms that will be best for you. Incidentally, it's almost impossible for a salesman to help you if he doesn't know if you will take cash, or a given percent down, or just what terms you will accept.

Of course, all decisions to sell can't be anticipated but when a family knows ahead of time that they will be selling out at a future date, a lot of tax money can obviously be saved by selling various segments of the business in different tax years. For example, perhaps "the other place" up the road can be sold separately either before or after the home place. Possibly cows and machinery can be sold in a different year than the farm.

At this point, it's way too late to do anything about it, but if a good set of records has been kept over the years, especially with itemization of the breakdown of the purchase price of the farm (i.e. between land and buildings and various parcels) a lot of hassling with the tax people can be avoided.

Listing

Once the decision to sell has been made and the price and terms the seller wants have been determined, then and only then is it time to list the farm. At this stage some sellers make what I believe to be a costly error. They give somebody an exclusive listing. Why, I don't know.

If the farm is for sale, let as many realtors list it as will do so on terms you find acceptable. By this I mean, at a percentage that you feel is realistic for your kind of property. Those who want more can't sell it any better. If the farm gets sold and an auction of stock and tools becomes the order of the day, negotiate with the auctioneer. With high prices and a large sale the percentage should be less than many sellers are paying.

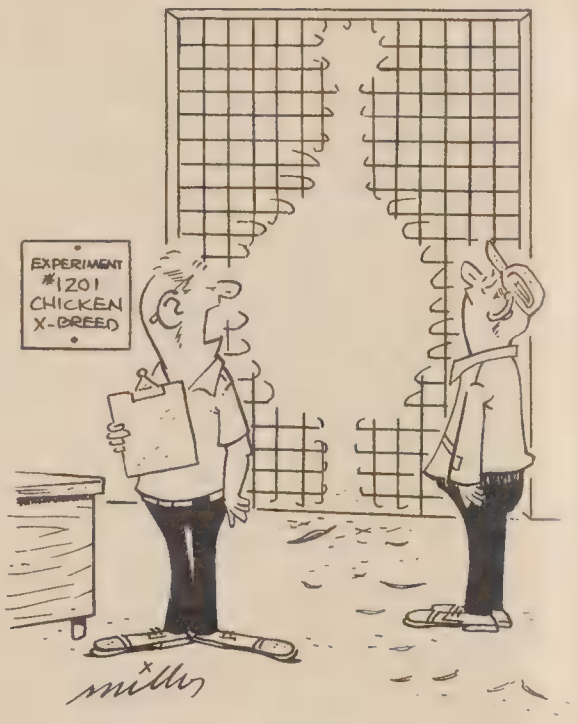
One last thing on top of all the rest of this unsolicited free advice. Once the farm is sold, it's all theirs unless you specifically withheld something. More hard feelings pop up after the sale. Nothing was said about the carpets. The auctioneer sells a few items that the buyer thought went with the place. Mama gets into the act when she wants to dig up and take along her favorite rose bush or iris bulbs or birdhouse or flag pole or whatever else that may have been quite personal but which went with the deal unless otherwise specified. We've seen this happen just often enough to know that it is one of the real problems in connection with real estate transfers. It's downright hard for anyone who has owned a place awhile to remember that he sold "the whole thing."

DEMOCRACY — IT'S WONDERFUL

Up and down the state, various scattered communities have been expressing their opposition to tax increases by voting down their school budgets. It happened in our district. As a member of the school board I was a bit upset but have to admit it turned out to be a blessing in some ways. At a later date a slightly lower budget was approved and the voters had a chance to vote on some propositions separately.

They turned down the options to have the cafeteria, extra busing, and driver education during school hours. It will be offered at other times at a considerable saving to the district. Anyway, the school board and administration now know in a way not clear before just what the majority wants and doesn't want.

Perhaps even more important, the public had an opportunity to be heard. To me, it is of utmost importance that this right be preserved. Suggestions of a statewide tax base and full state financing of school costs would mean the end of restraints over expenditures by local people. So long as they act responsibly, the right to accept or reject budget proposals made by the local board of education is one of the few real democratic processes and controls left to the general public.



"Well, I say good riddance!"

READER SERVICE



READER SERVICE CLAIMS SETTLED

NEW YORK

Mrs. Charles Geweye, Lowville Refund on mirror	$ 24.30
Mrs. Hubert Schoonmaker, Clyde Refund on subscription	3.95
Mr. & Mrs. Simeon Mattice, Corfu Refund on tuition	281.25
Mrs. Frank Barber, Oakfield Refund on order	11.55
Mr. Adolphus Baird, Oneida Refund on glasses	4.95
Mr. Austin Williams, Fort Edward Gas tax refund	52.21
Mrs. Edward Green, Martville Refund on order	3.33
Mrs. Harold Scholton, Panama Refund on order	3.00
Mrs. Frank Wright, Trumansburg Settlement of claim	315.00
Mrs. Arthur Kline, Chestertown Refund on order	15.45
Mr. Earl Saunders, Alfred Station Account cleared	60.00

PENNSYLVANIA

Mrs. Lucy Webster, Monroeton Insurance settlement	259.94
Mrs. Mary Jones, Venango Refund on order	8.95
Mrs. Mabel Friese, Reedsville Refund on order	9.95
Mrs. Leonard Herr, Dingman's Ferry Refund of overcharge	50.20

YOU'VE GOTTA DO IT

Whereas most business operations are conducted in an orderly fashion, there is always the opportunist who is ready to take advantage of the current sociological climate to pressure people into buying inferior products or services.

One example is the fellow who claims to be a health department inspector. He tells you that you must replace your furnace because it is polluting the air. You are apt to discover that he was an advance man whose assignment was to line up prospects for an itinerant home improvement outfit.

When someone tells you that repairs or replacements are essential because of a legal requirement, be sure there is such a regulation, that you are actually in violation, and that he is authorized to insist on compliance.

RETURNED GOODS

When returning merchandise for repair or credit, be sure that the shipment is insured with return receipt requested so that you will have proof of its receipt by the firm to which you are sending it.

A subscriber has been trying to get a refund on a returned item for over six months. The company now tells us that it has no record of having received the shipment. Unfortunately, it was sent via Parcel Post and was not insured. The Post Office will try to trace the package, but such efforts are usually hopeless when there is no record of shipment.

FENCE LAW

A 1973 amendment to Section 40 of the Town Law has resulted in a minor change in the New York State fence law. It provides that where a town has a "sole appointed assessor," the assessor **and members of the town board** shall act as fence viewers.

Article 50-A of the assessment law provides for only one appointed assessor per town **unless** a referendum is held to retain three elected town assessors as previously provided. About sixty percent of the towns held such referendums and still have three assessors, any two of which must serve as fence viewers.

At least two counties in the state have established county divisions of assessment. In one of these (Tompkins), the head of the division has been given the responsibility for handling line fence disputes.

In our April column, we discussed recent court decisions which changed the basic concept of neighbors maintaining equitable portions of division fences even though one might not keep any livestock. It is feared that there will be differing interpretations of the precise intent of the decisions.

There would appear to be a need to provide additional legislation to avoid jamming overloaded courts with fence-dispute cases. In the process, agricultural people and non-farmers would have equal opportunity to provide input during consideration of revisions of the fence law which affects many country dwellers.

'TIS THE SEASON

Back a couple of decades, we were deluged every year with complaints from subscribers who had not received pay for Christmas trees. These have tapered off in recent years, but we feel it worthwhile to remind readers about some of the pitfalls of the business.

Buyers have been known to use the excuse that trees were of poor quality in order to avoid paying for them. Others contract for a specific block of trees within a plantation, and then proceed to cut only the cream of the crop. Others top out valuable trees to get attractive table trees. Careful supervision at time of cutting will eliminate some of these practices.

When a plantation owner has spent time and money over several years to grow well-sheared trees, he is entitled to the fruits of his labor. If a buyer cannot come up with payment for trees at the time he buys them, the solution might be to require a performance bond or a promissory note.

If you have had satisfactory cash dealings with him in the past, you might be tempted to let him have trees this year on a commission basis or with only a small down payment. Remember that his financial situation may have changed, and you might find yourself with nothing but stumps to show for your investment.

Growers not already members should consider joining a Christmas tree growers' association. Your county extension agent can help you to locate such an organization in your area. In some states, the district or county forester is another source of assistance in plantation management, including marketing.

Just Five Days Before!

Remodeling a barn to accommodate more veal calves, Daniel Janis of Delhi, N.Y. was sawing a large beam when it broke loose and fell from its brace. He was hit in the back, thrown down and crushed breaking his right thigh and hip bones. In traction and a body cast, Mr. Janis spent months in two hospitals and over a year recovering at home.



Local agent Robert H. Utter of Delhi, N.Y. delivered $2155.00 to Mr. Janis. Here is his letter of thanks:

"I want to thank you for your quick settlement of my claim. Your agent Bob Utter was here five days before I was injured and I am glad I bought the protection.

I only regret that I didn't take the Hospital and Home income policy. After 26 weeks in hospital and 52 weeks at home still unable to work, this policy would have paid me in excess of $15,000.00.

This protection paid me over and above other protection I had and was a big help to me when I needed it. I would recommend this protection to anyone and don't see why everybody doesn't have it."

Daniel Janis

OTHER CLAIMS PAID

A friend's name may be in this list.

Thomas Eddy, Black River, N.Y. Kicked by cow—inj. neck	$ 232.00
Raymon Irish, Freedom, N.Y. Thrown from tractor—broke arm	420.87
David Pettengill, Ischua, N.Y. Tree branch fell—head injuries	639.05
George Proper, Moravia, N.Y. Slid under power mower—inj. foot	200.73
Gertrude Ostrander, Locke, N.Y. Slipped on tree root—broke ankle	440.71
Virginia Bernard, Cassadaga, N.Y. Minibike accident—broke leg	951.10
C. Daniel Bogert, Sherman, N.Y. Lamp fell—broke teeth	444.00
S. Bartholomew, Jr., Horseheads, N.Y. Planing door—injured hand	372.50
Michael Boulerice, Champlain, N.Y. Fell from hay mow—broke ankle	627.39
Leonard Kimmich, Marathon, N.Y. Crushed by cow—injured arm	1668.55
Allan Brockway, Hobart, N.Y. Caught in PTO—broke ankle	2058.56
Graham Jackson, Walton, N.Y. Ran over by tractor—broke shoulder	776.04
Donald Heineman, Chaffee, N.Y. Header fell—inj. foot	172.97
Kevin Schmitz, N. Collins, N.Y. Caught in motorcycle chain—inj. hand	623.05
Everett Johnston, Burke, N.Y. Cow pushed into pipe—broke rib	235.71
Gordon Seward, Bergen, N.Y. Stepped on nail—injured foot	205.54
Irene Micek, Watertown, N.Y. Calf hit pail—inj. leg	405.00
Leo Garvin, Black River, N.Y. Struck by cow—broke arm	344.28
Robert Peterson, Lowville, N.Y. Silo chute fell—inj. shoulder	316.88
Katie Lehman, Castorland, N.Y. Auto accident—broke ribs	898.13
Genevieve Johnson, Bouckville, N.Y. Auto accident—inj. elbow	360.73
Gene Taylor, Scottsville, N.Y. Fell from horse cart—inj. back	181.96
Gerald Rouse, Fort Plain, N.Y. Kicked by cow—inj. lung	1562.84
Morris Arthur, Remsen, N.Y. Slipped off ladder—inj. leg	300.00
Elmer Sipfle, Fabius, N.Y. Pushed by cow—inj. back	460.00
Mary Laursen, Geneva, N.Y. Fell down stairs—inj. knee	234.05
Jacob Sanok, Jr., Goshen, N.Y. Plank gave way—inj. knee	165.00
David Freytag, Pennellville, N.Y. Pinned by cow—broke arm	$ 257.30
Ralph Francis, E. Worcester, N.Y. Auto accident—inj. shoulder	205.80
Alfredia Morrell, Schenevus, N.Y. Auto accident—inj. neck	622.55
Kurt Tempel, East Greenbush, N.Y. Caught in mower—inj. hand	200.00
Roger Tamblin, Richville, N.Y. Caught in mini bike—inj. thumb	250.00
Rudolph Schultz, Schoharie, N.Y. Hit by cow—broke arm	761.49
Charles Manchester, Sloansville, N.Y. Fell from ladder—head injury	311.04
Robert Talbot, Cameron, N.Y. Playing soccer—broke leg	1321.42
Laura Harrian, Savona, N.Y. Fell from bicycle—broke tooth	305.00
Tony Grodski, Riverhead, N.Y. Caught in bin loader—broke thumb	142.14
John Kuchtok, Jr., Southampton, N.Y. Hood fell—inj. back	266.71
Richard Bowen, Newark Valley, N.Y. Changing truck tire—inj. back	762.53
Irvin Fisher, Trumansburg, N.Y. Fell boarding boat—inj. knee	120.00
Milford Dodge, Granville, N.Y. Slipped and fell—inj. knee	840.49
David Sappa, Lyons, N.Y. Hit by tree limb—cut scalp	539.35
Philip Havert, Newark, N.Y. Gasoline fire—burned arm	147.17
Gertrude Hartnagel, Newark, N.Y. Fell on mopped floor—broke leg	810.00
Rodney Olsowsky, Bliss, N.Y. Fell off horse—inj. back	302.98
James Paddock, Jr., Rushville, N.Y. Fell from ladder—broke knee	1760.00
Henry Avery, Columbia Cross Rds., Pa. Fell off hay wagon—broke rib	372.56
William Hollenback, Towanda, Pa. Sliding into 2nd—broke leg	102.14
N. McKrancy, Monmouth Jct., N.J. Auto accident—inj. back	629.35
Guy Howie, Allamuchy, N.J. Aerosol can exploded—burned face	667.78
Edith Snow, Bernardston, Mass. Struck by crowbar—inj. nose	234.58
Harold Haun, North Adams, Mass. Fell on stairs—inj. knee	580.00
Donald Sweeney, St. Albans, Vt. Knocked down by calf—inj. shoulder	277.50
Eva Harton, Essex Jct., Vt. Auto accident—multi. cuts & bruises	630.00

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Earl Eaton demonstrates the high palatability of his ration containing cooked soybeans.

Soybeans . . . . .

(Continued from page 57)

"They were just as palatable in May as in December, when they were first cooked," Earl reports.

Whole Picture

Soybeans are getting their share of publicity these days, in the Northeast as well as nationally. Although the profit potential of growing and feeding soybeans is presently attractive, we should be careful not to be mesmerized by them.

Experience with this crop in our region is limited . . . except for New Jersey and southern Pennsylvania. Varieties now grown in New York State are generally late-maturing and could fail in a short growing season. With ruminant animals, there are other economical substitutes . . . especially high-protein alfalfas that are more widely adapted to northeastern soils and climate.

Nonetheless, a growing number of farmers have found success with soybeans the last couple of years, both as a crop to sell and a crop to feed. It looks as though 1974 will again be "the year of the bean."

Meats . . . . .

(Continued from page 61)

startle any Englishman, but suits Americans very well indeed. Served with a good fruit salad, it is a tasty and simple meal.

TOAD-IN-THE-HOLE

1 to 1½ lbs. sausage
3 eggs
1½ cups sifted flour
¾ teaspoon salt
1½ cups milk

Form 1-inch balls of sausage or use links. Spread evenly in a 9×13-inch baking pan. Place in a preheated 350° F. oven for 20 to 25 minutes, or until fat exudes from sausage and the exterior loses its red color.

Prepare batter by placing all remaining ingredients in blender (eggs in first) or a mixer and running until batter is thoroughly combined and smooth.

Remove pan with sausages from oven. If there is excessive fat, drain off part of it. Turn oven to 400° (glass pan) or 425° (metal pan). Pour batter over sausages and bake 35 to 45 minutes longer, or until sausages are done. Cut in squares and serve with butter and syrup.



Max Richter of East Durham, (Greene County) New York, operates a butterfly farm where he breeds and raises hundreds of types of butterflies. Scientists from various parts of the world depend on him for their supply of these beautiful members of the insect world. Photo: Alfred Weiner

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(Page 78 including page 16 A-L.)

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Come in... let's talk.

We're listed on the facing page.





Charlie Jeffers



Strat McCargo



Dick Morse

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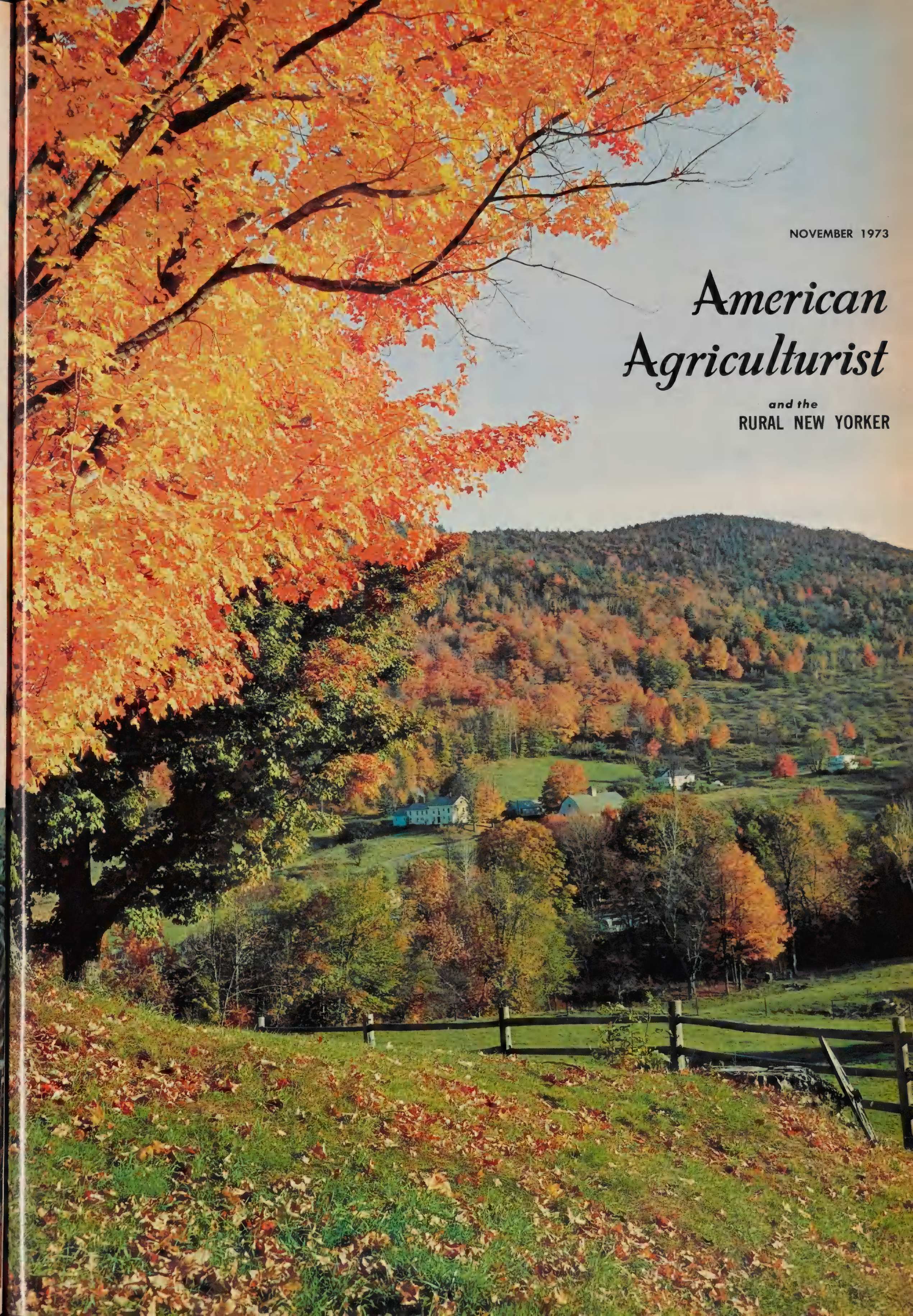


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OUR COVER

What overwhelming beauty is painted across the trees of the Northeast each year! Herbert Shumway took the cover photo near Buckland, Massachusetts.

ABC
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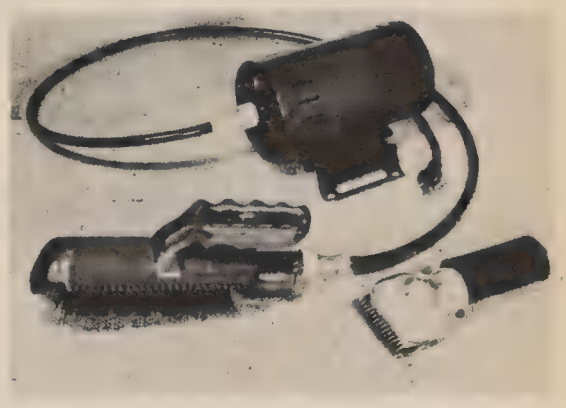
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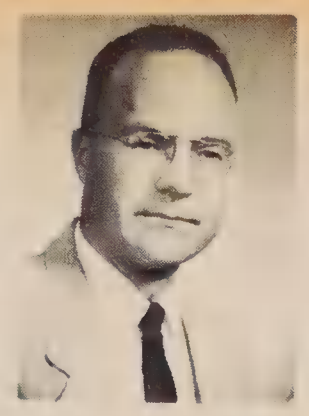


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EDITORIALS



by GORDON CONKLIN

WIDE RANGE

Did it ever puzzle you to hear one politician characterize farmers as a downtrodden bunch of paupers without a red cent . . . and then hear another politician describe farmers as a rich minority with above-average incomes? As with so many other easy generalizations, they're **both** wrong, and they're **both** right!

A recent summary of the business records of 571 New York State dairy farmers for calendar 1972 illustrates the point. Here's a frequency distribution of these farmers in terms of labor income:

Labor income per operator	Farms	
	Number	Percent
Minus income	138	24
$ 0 — 4,999	137	24
5,000 — 9,999	143	25
10,000 — 14,999	80	14
15,000 — 19,999	41	7
20,000 — 24,999	15	3
25,000 or more	17	3

Labor income is the return to a farm operator for his labor and management . . . a charge of seven percent interest has been made in all capital involved, and subtracted from farm income. Note that nearly 50 percent had labor incomes under $5,000 per operator, another 40 percent between $5,000 and $15,000, and the rest more than $15,000. The arithmetic average was $5,835 for all 682 operators involved on the 571 farms.

There are two major points I conclude from all this concerning the evaluation of information: Frequency distributions are more helpful in getting an accurate picture of a situation than are arithmetic averages. After all, a river may only **average** two feet deep . . . but a person can easily drown in the holes that are 20 feet deep!

Politicians . . . or anyone else . . . can find among any population individuals that fit the need of the moment to illustrate a particular point of view. However, a thoughtful listener should search for the truth that involves a broader consideration of the group in question.

FOOD COST FURORE

In a recent issue of *Business Week*, its editor wrote, "The willingness of this nation to coddle its farmers at the expense of consumers and at the risk of another round of roaring inflation is beyond human comprehension. It cannot be explained by the waning political power of the farm bloc. And it certainly cannot be justified by any rational economic policy. It must be attributed to sheer force of habit."

Wrong, Mr. Editor . . . rising food prices are resulting from the workings of supply and demand in the marketplace. Overseas consumers are willing and able to pay more for U.S. grains than American consumers are accustomed to pay . . . and misguided price controls have discouraged production in this country.

As I read the item in *Business Week* deploring the rise in food prices, especially beef, I wondered whether the editor knew that:

—Average hourly wages in industry increased **every** year between 1952 and 1972 . . . up by 140 percent. Food prices during that period rose by 47 percent . . . largely because average prices **at the farm** rose in only ten of those years, and **dropped** in the other ten. As recently as 1972, beef cattle prices **dropped** from $38.62 per hundredweight on July 11 to $34 on August 23 . . . a tumble of 12 percent in six weeks! *Business Week* should try to weather a storm like that sometime!

—In early July of this year, boneless sirloin steak cost $1.99 per pound at Washington, D.C. . . . $4.55 at Bonn, Germany and $12.04 in Tokyo, Japan!

—The consumer will lay down a dollar for an ounce of whisky without batting an eye. But how he howls when he has to pay a dollar for a gallon of milk!

—If cattle prices had risen as fast as hospital charges, they would be selling for $180 a hundred pounds, liveweight.

And so on and on could flow the statistics that illustrate the wildly cyclical nature of farm prices . . . the relatively lower incomes "enjoyed" by farm families as compared to their urban counterparts over the last quarter century . . . the enormous investments required by modern farming. But these things . . . even if believed by non-farm consumers . . . would not shift his or her attitude toward food prices. The consumer wants **lower** food prices, period.

To heck with all the fancy public relations programs to convince the consumer that he "owes" farmers a better living. How many of you ever decided to buy a Ford automobile because the Ford Foundation does great things on behalf of mankind . . . whereas General Motors has no such charitable foundation?

The consumer will pay more if he **has** to pay more because of the realities of a marketplace responsive to the interplay of supply and demand. It is futile to attempt to convince anyone that he should be **happy** about paying more for **anything** . . . this flies in the face of the facts of human nature.

RE: CYCLE

Penn State researchers are sticking grimly to their work of developing livestock rations that include animal manure of various kinds. While applauding their persistence and imagination, I must confess doubt as to whether it's a viable concept.

Remember the drunk who was given a glass of water? After a sip, he made up a face and exclaimed, "It'll never sell!" That's my summation of the long-run fate of feeding animal manures to animals.

I can see it now . . . Ralph Nader will write a book on the topic entitled "Unfit From Any Steed." After a television documentary or two showing all the gory details, the average consumer will refuse to eat **anything!** The final blow will come when a young researcher makes a sensational discovery, and exclaims, "Why not recycle this stuff through **plants** first?"

BIGGEST COUNTERFEITER

Harland Poyer, who lives not far from Ithaca, New York, recently sent me a diagram he had devised, showing the inverse correlation between the purchasing power of the dollar and the national debt. Sure enough, the national debt has been soaring . . . and the value of the dollar sags year by year. In 1972, total government spending at all levels came to **35 percent** of the dollar value of our national output. I note that the national debt is now nearing **half a trillion dollars** . . . grim evidence that politicians of both parties have found it impossible to live within a reasonable budget! It's especially alarming that 21 percent of the total national debt was incurred **during the last four years.**

Economist James Bray of the Stanford Research Institute reports that the federal government pumped a total of $46 billion into the U.S. money supply in 1971 and '72 . . . without a counterbalancing expansion of goods and services. The effect is the same as if $46 billion of counterfeit dollar bills had been slipped unaware into the money stream . . . and to think that kind old Uncle Sam is in effect the biggest counterfeiter of them all! The galloping inflation that robs us all is the result.

Government spending is really out of control, like a raging four-alarm fire. There is no magic formula for getting it under control again . . . just the time-tested one of crowding our legislators to return to the concept of a **really** balanced budget.

Governors of some northeastern states (notably our friend Mr. Rockefeller in New York) have all kinds of fiscal wizardry to convince the voters that state budgets are balanced. The fact is, however, that they're **not** always in the black, either . . . so do some crowding of legislators in your home states, too.

MINE EYES HAVE SEEN THE GLORY

Some of the folks I meet can talk of nothing else but corruption in government, the seizing of hostages by fanatics, soaring crime, rising taxes, and all the other well-publicized afflictions of mankind. It is as though they purposely wore dark glasses through all of life's experiences.

But they thereby are unaware of the vibrant beauty of fall's changing foliage . . . they do not see the evening star twinkling its welcome to the first clean, cold breath of winter. The dawn with all its promise . . . and eventide's beckoning rest . . . both are merely irritants to those whose gaze is fixed firmly upon the mud and dirt of life.

It's my privilege to visit families whose hearth glows with concern for each other, and to talk with people facing life's calamities with a courage impossible to put on paper. My journeys take me among the workers and managers in life's sweaty arenas where goods are created . . . where people take as a matter of course that it is man's destiny to be productive. The negative cup of bitter dregs shall always be mankind's lot to drink, but the world also offers a full measure of positives.

If you find yourself succumbing to the fashionable contention that all is dismal and gloomy in this troubled old world, then it is because a major portion of life has escaped your awareness. May the attitude of gratitude grace your thanksgiving table when you sit down to partake of the traditional feast!

GUEST EDITORIAL

"The mood of Washington is set by the bureaucracy, rather than by elected officials. The bureaucracy is always there, looking neither to the left nor the right, resisting change, protecting jobs, waiting patiently for the elected policymakers to go their way, as go they must." — *Congressman Barber Conable, 35th District, New York.*

THE PASSING PARADE

A friend of mine, who had the sense to select parents who are millionaires, took me to an exclusive men's club in Chicago. Being a country boy, I was appropriately impressed with the luxuriant surroundings and fancy food.

After dinner, we paused at the entrance . . . and watched as a black limousine that **seemed** half a block long pulled smoothly to a stop. The colorfully-uniformed doorman rushed down to open the door, lost his footing, and rolled down the steps.

The club manager observed the scene and scolded the crestfallen doorman, "Be careful, man . . . people will think you're a member!"

American Agriculturist, November, 1973

NEW YORK

ADAMS	Agway Coop., Inc.
ADAMS	Belloff Dept. Store
ADAMS CENTER	Queens Farms Supply Store
ALBANY	South Pea·l Army & Navy
AMSTERDAM	Agway Farm Store
AMSTERDAM	Miller's
ARKPORT	Kilbury Feed Service
ATTICA	Attica Agway
AUBURN	Auburn Agway Farm & Home
AUBURN	The Liberty Store
AVON	Avon Agway
BAINBRIDGE	C. H. Eldred & Co., Inc.
BAINBRIDGE	Lockwood Dept. Store
BALDWINSVILLE	Glass Togs 'n Bootery
BALLSTON SPA	Ballston Agway Coop., Inc.
BATAVIA	Batavia Agway
BATH	Castle Shoe Store
BATH	Harold's Army & Navy
BATH	Orr's Shoe Store
BATH	M. J. Ward & Son
BELMONT	Wayne Feed Supply Co.
BINGHAMTON	Binghamton Agway Coop.
BINGHAMTON	Fowler, Dick & Walker
BINGHAMTON	Hank's Men's & Boys' Shop
BINGHAMTON	Harris Army & Navy
BRIDGEHAMPTON	Bridgehampton Agway
CALEDONIA	William Hamilton & Son
CALLICOON	Frank Popolillo
CANANDAIGUA	Benham Elevator
CANANDAIGUA	Charles Outhouse Feed & Coal
CANANDAIGUA	Joe Valvanos Dry. Sup.
CANDOR	Ward & Vanscoy, Inc.
CANTON	Grasse River Agway
CANTON	Northern N.Y. Bulk Milk Producers
CAZENOVIA	Buyea's
CHAMPLAIN	Champlain Agway
CHATEAUGAY	Chateaugay Coop. Marketing Assn., Inc.
CHATHAM	Brown Shoe Co.
CHAZY	Wayne Feed Supply Co., Inc.
CHURCHVILLE	Churchville Agway
CLAVERACK	Agway, Inc.
CLINTON CORNERS	Clinton Corners Agway
COBLESKILL	Cobleskill Agway
COBLESKILL	Schoharie Co. Coop.
COHOES	Cramer's
COOPERSTOWN	Pugliese Shoe Service
CORNING	Harold's Army & Navy
CORTLAND	Farm Line, Inc.
CUBA	Cuba Agway
CUBA	Cuba Shoe Store
DANSVILLE	Dansville Agway
DANSVILLE	Dansville Farm Supply
DANSVILLE	Boyd's Shoe Store
DANSVILLE	Perry Shoe Service
DELMAR	Donnelly's Shoe Store
DOLGEVILLE	Producers Coop. Inc.
DRYDEN	Dryden Agway
DUNDEE	Robert Bostwick
DUNDEE	Dundee Agway
EAST AURORA	Reynold's Agway
EAST CONCORD	Shamel Milling Co.
EAST SYRACUSE	Reichert's Toggery
EAST SYRACUSE	Sack's Dept. Store
EAST WILLIAMSON	East Williamson Merc.
EDEN	Laing's Mill
ELMIRA	Harold's Army & Navy
ELMIRA	Mr. Panosian's
ELMIRA	Savino Shoe Store
EVANS MILLS	Evans Mills Agway Coop.
FAIRPORT	Fairport Agway
FALCONER	Falconer Agway
FALCONER	George's Shoes
FORT EDWARD	Adirondack Farmers Coop. Exch. Inc.
FORT PLAIN	Dutcher Shoe Store
FORT PLAIN	Fort Plain Farm Store
FORT PLAIN	Parr's Shoe Store
FREDONIA	Pomfret C&E Grape Growers
FREDONIA	Shearer's
FULTON	Joe Cortini Shoes
FULTON	Fulton Agway Coop. Inc.
FULTON	L. W. Harris Store
GENEVA	DiDuro Shoe Store
GENEVA	Geneva Agway
GENEVA	Hessney Shoe Store
GENEVA	E. E. Miller & Son
GENEVA	Super Army & Navy Store
GLOVERSVILLE	Sano Shoes
GOUVERNEUR	Sol Kaplan's Inc.
GRANVILLE	Granville Agway
GREENE	Miller's Shoe Store
GREENWICH	Greenwich Agway
GREENWICH	Pratt's Clothing
GROTON	Groton Feed Co.
HAMILTON	John's Shoe Shop
HERKIMER	Agway Coop.
HILTON	Hilton Agway
HOLCOMB	Holcomb Agway
HOMER	Homer Men's & Boys' Store
HONEOYE FALLS	Oppedisano Bootery
HORNELL	LaPiana Shoe Store
HORSEHEADS	Elmira Agway
HORSEHEADS	Marshall's Feed Mill
ITHACA	Harold's A & N Store
ITHACA	Ithaca Agway Farm Store
ITHACA	Sturm Bros.
JAMESTOWN	Arcade Shoes
JAMESTOWN	Brown Bilt Shoes
JAMESTOWN	C. L. Carnahan Corp.
JAMESTOWN	Herbert's Shoes
JAMESTOWN	Roselle Shoes
JAMESTOWN	Roselle Shoes
JOHNSTOWN	Fonda-Johnstown Agway
KNOWLESVILLE	Knowlesville Agway
LA GRANGEVILLE	Milton Alley Agway
LAKEWOOD	Brown-Bilt Shoes
LIBERTY	Liberty Agway Coop.
LINWOOD	Linwood Agway
LITTLE VALLEY	Gramco, Inc.
LIVINGSTON MANOR	Siegel's Dept. Store
LOCKPORT	A & B Sport Center
LYONS	Paliotti Shoe Store
LYONS	Smart's Agway Serv.
LYONS	Tri County Feed, Inc.
MACEDON	Townsend Grocery
MARGARETVILLE	Margaretville Agway
MAYVILLE	Shearer's Store
MEDINA	Family Shoe
MEDINA	Wolk's Men's Store
MIDDLETOWN	Middletown Farm & Home Store
MILLBROOK	Miller's Farm & Garden Center
MILLERTON	Agway, Inc.
MILLERTON	John Clark (IBA Agent)
MILLERTON	Bernard Jacobs
MILLERTON	Saperstein's
MONTGOMERY	Montgomery Agway Coop., Inc.
MONTOUR FALLS	Guild Bros.
MORAVIA	Jennings Dept. Store
MORAVIA	Moravia Agway Coop.
NAPLES	Jack's Shoes
NAPLES	Naples Farm & Home Center
NEW BERLIN	I. L. Richer Co., Inc.
NEWARK	Newark Agway Coop., Inc.
NEWARK	Phil's Shoe Store
NEWBURGH	Devitt's Agway
NORTH CHILI	Higbie Farm Supply
NORWICH	Agway Supply Center
NUNDA	Nunda Farm Service
ODESSA	Odessa Agway Coop., Inc.
OGDENSBURG	Ogdensburg Agway
OLEAN	Lester Shoes
OLEAN	Martino's Shoes
ONEIDA	Garafalo Shoes
ONEONTA	Klau Mart
ONTARIO	L. Noto
OSWEGO	Modern Shoe Service
OSWEGO	Oswego Agway
OSWEGO	Vona Shoe Store
OWEGO	Langdon's Men's Shop
OWEGO	Owego Agway
PAINTED POST	Tallman Dept. Store
PALMYRA	Palmyra Agway
PENN YAN	Penn Yan Agway
PENN YAN	Penn Yan Ice
PENN YAN	Penn Yan Farm Supply Inc.
PERRY	Perry Agway Coop.
PIKE	Pike Hardware
PINE BUSH	Pine Bush Agway
PORT CHESTER	Levine's A & N
POTSDAM	Potsdam Agway
RANDOLPH	Harkness Farm & Home
RENSSELAER	Albany Agway
RIVERHEAD	Riverhead Agway, Inc.
ROCHESTER	Ed M. Davis & Co.
ROME	Phillipson Army & Navy
ROME	Townsend Shoe Store
RUSHFORD	L. H. Bump Agway
SALAMANCA	Mason's Shoes
SAYVILLE	Courtney Shoes
SCHAGHTICOKE	Hoosac Valley Farmers Exch., Inc.
SCHENECTADY	Bernie Buster Brown Shoes
SCHENECTADY	Henry's Cleaners & Tailors
SCHENEVUS	Milton Brandow
SCHENEVUS	Schenevus Agway
SCIPIO CENTER	Krueger Feed & Supply
SENECA FALLS	Ceo & Rutz Shoes
SENECA FALLS	Farmco, Inc.
SHERBURNE	D. K. Hodges
SHERBURNE	Sherburne Agway
SKANEATELES	Rolands Men & Boys Store
SINCLAIRVILLE	Peterson's Agway Serv.
SOUTH DAYTON	Austin Milling Co.
SPRINGVILLE	Concord Agway
SPRINGVILLE	Maxon's Shoes
STAMFORD	Stamford Agway Farm Store
SYRACUSE	DeJulio A & N
SYRACUSE	Lewis Uniform Co.
SYRACUSE	N.E. Dairy Coop. Feed, Inc.
TARRYTOWN	Shubert's A & N
TROY	Pressman's A & N
UTICA	Centolella Bros.
UTICA	Revere Shoes
UTICA	Seneca Boot
VERNON	Vernon Army & Navy
VERNON CENTER	Vernon Milling Co., Inc.
VICTOR	Victor Farm & Home Center
WALTON	Cetta Bros. Shoe Store
WALTON	Walton Agway Farm Store
WARSAW	Coward's Feed Store
WARSAW	Montgomery's Feed Mill
WARWICK	Howard Quackenbush & Son
WASHINGTON MILLS	Washington Mills Agway
WATERTOWN	Agway Farm Store
WATERTOWN	Max Alpert, Inc.
WATERTOWN	Walter H. Bisnett, Inc.
WATERTOWN	Jefferson Bulk Milk Co-op.
WATKINS GLEN	Van Slyke's Shoe Store
WELLSVILLE	Ludden Shoe Store
WHITEHALL	Whitehall Branch Agway
WHITEHALL	Granville Agway Coop., Inc.
WHITE PLAINS	Jack's A & N
WHITESVILLE	Whitesville Agway
WHITNEY POINT	Ken's Clothing
WOLCOTT	Edwards Shoe Store
WOLCOTT	Wolcott Agway

CONNECTICUT

BERLIN	Mickey Finn Store
BLOOMFIELD	Bloomfield Farmers Exch.
BRIDGEPORT	Fairfield Clothing Co.
BRIDGEPORT	Junes Rep.
BRIDGEPORT	Liberty A&N Store
BUCKLAND	Agway, Inc.
DANBURY	Bargain World
DANBURY	Markoff's
EAST HARTFORD	Industrial Uniform Co., Inc.
EAST HARTFORD	Seapark's Dept. Store
ELLINGTON	Ellington Agway
ENFIELD	Vincent's Apparel
GLASTONBURY	A. Kamin's Dept. Store
MIDDLEFIELD	Agway's Inc.
MONROE	Wm. Benedict
NEW MILFORD	Agway, Inc.
NEW MILFORD	Markoff Shoes
NEW MILFORD	Ruwet-Sibley Equipment, Inc.
NORTH BRANFORD	Town & Country Shoes
NORTH FRANKLIN	Kahn Tractor & Equip., Inc.
NORTH FRANKLIN	Red Rose Farm Service, Inc.
NORTH HAVEN	Agway, Inc.
NORWALK	Bargain World
PLAINFIELD	Agway, Inc.
PLAINVILLE	Mundy's Shoe Store
PORTLAND	Anderson Farm Supply
PUTNAM	Army Surplus Store
SIMSBURY	Valley Home & Garden Center
TAFTVILLE	Eldredge Hardware Co., Inc.
TORRINGTON	Agway, Inc.
TORRINGTON	Blue Seal Feeds
WEST HARTFORD	Bazilian's
WILLIMANTIC	Agway, Inc.
WILLIMANTIC	Mackey's
WILLIMANTIC	Surplus Center
WINDSOR LOCKS	Work Apparel
YANTIC	Agway, Inc.

MAINE

AUBURN	Agway, Inc.
AUGUSTA	Archie's A&N Store
BANGOR	The Carter Feed & Farm Supply
BANGOR	Schiro's Bangor Shoe Store
BANGOR	Standard Shoe Store
BELFAST	Colburn Shoe Store
BIDDEFORD	Picard's Feed & Supply
BREWER	Agway, Inc.
BREWER	Epstein's
CAMDEN	Hodgman Footwear
CHISHOLM	Grimaldi's
ELLSWORTH	Willey's
FORT KENT	Soucy Supply
HOULTON	Coles Shoe Shop
LIMESTONE	Cyr's Dept. Store
MADISON	Campbell's
NORRIDGEWOCK	Big Al's Place
PITTSFIELD	Agway, Inc.
PRESQUE ISLE	Maine Potato Growers, Inc.
SABATTUS	Stevens Feed & Hardware
SKOWHEGAN	Agway, Inc.
UNITY	A & R Specialty Co.
WATERVILLE	J. E. McCormick & Son
WINSLOW	Agway, Inc.



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10" Work Boot: **$7.50** Women's Muk-Luk Boot: **$6.50**

MASSACHUSETTS

AMESBURY	Ben's Men's Shop
AMHERST	Amherst Farmers Supply, Inc.
ATHOL	Athol Army & Navy Store
AUBURN	Aubrey Pulling
BOSTON	Mickey Finn
BOSTON	Sam's Outlet
CAMBRIDGE	Eastern Uniform Co.
CLINTON	Sanford's Inc.
DORCHESTER	Marine Clothing Co.
EAST BROOKFIELD	Brookfield Factory Outlet
FITCHBURG	Student Bros.
FITCHBURG	United Coop. Farmers, Inc.
FRAMINGHAM	Army & Navy Store
GARDNER	Dow Shoe Store
GARDNER	Student's Shoe Store
GREAT BARRINGTON	Agway, Inc.
GREENFIELD	Farm Bureau Assn.
GREENFIELD	Greenfield Farmers Coop. Exchange
HARDWICK	Hardwick Farmers Co-op Exchange
HAVERHILL	Ben Cortell
HINGHAM	Hitchcock Shoes, Inc.
HOLDEN	Agway, Inc.
MANSFIELD	Mansfield Feed & Farm Supply
MAYNARD	Maynard Outdoor Store
MIDDLEBORO	C. P. Washburn
MILFORD	Gob Shop
NATICK	Natick Outdoor Store
NATICK	Wells Shoes
NEW BEDFORD	Agway, Inc.
NORTHAMPTON	Agway, Inc.
NORTHAMPTON	I. Fine, Inc.
PITTSFIELD	Agway, Inc.
SALEM	J. B. St. Pierre Shoes
SHELBURNE FALLS	Agway, Inc.
SOUTH LANCASTER	Lancaster Grain & Supply Co.
SOUTHBRIDGE	C & S Outlet Inc.
WESTFIELD	Agway, Inc.
WILLIAMSTOWN	Lo Presto's Shoe Store
WORCESTER	Al Vuono's Men s Shop

NEW HAMPSHIRE

CLAREMONT	R. N. Johnson
CONCORD	Agway, Inc.
CONCORD	Merrimack Farmers' Exchange, Inc.
CONCORD	Mickey Finn
DOVER	Agway, Inc.
MANCHESTER	LeBlanc's Shoe Store
MILFORD	Agway, Inc.
MILFORD	Irving Savage
NASHUA	Little Shoe Store
NASHUA	Morey's Uniforms
SALEM	Pete's Little Store
WALPOLE	R. N. Johnson, Inc.

RHODE ISLAND

NORTH PROVIDENCE	Shoe Horn
PASCOAG	Berk's
PAWTUCKET	Saltzman's Inc.
WARREN	Jamiel's Shoe World
WEST KINGSTON	Agway, Inc.

VERMONT

ALBURG	Alburg Isle Lamotte Farmers Coop., Inc.
BARRE	The R. L. Clark Store, Inc.
BRATTLEBORO	Sam's Dept. Store
BRATTLEBORO	Agway, Inc.
BRIDPORT	Francis Broughton
BRIDPORT	Huestis Farm Supplies
CHESTER DEPOT	R. B. Erskine Feed Store
GRAND ISLE	St. Albans Coop. Creamery
HIGHGATE CENTER	O. C. McCuin & Son
LUDLOW	Ludlow Feed & Supply
MIDDLEBURY	Abram's Dept. Store
MIDDLEBURY	Agway, Inc.
MILTON	Milton Co-op Dairy Corp.
MORRISVILLE	Lamoille Grain Co.
MORRISVILLE	Yankee Milk Inc.
NEWPORT	H. P. Hood & Sons Farm Store
RUTLAND	Agway, Inc.
SAINT ALBANS	H. P. Hood & Sons
SAINT ALBANS	St. Albans Coop. Creamery
SAINT JOHNSBURY	Caplan's Army Store
SAINT JOHNSBURY	E.T. & H.K. Ide, Inc.
VERGENNES	Fishman's Dept. Store
VERGENNES	H. P. Hood & Sons Farm Store
WEST RUTLAND	Richard B. Chapman, I.B.A.
WEST RUTLAND	S. E. Smith Co.

NEW JERSEY

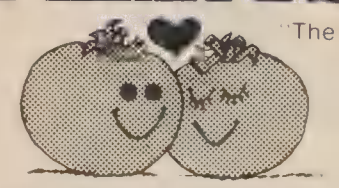
BRIDGETON	Agway Co-op.
BRIDGETON	Pete's Men's Shop
COLUMBUS	Jack Van Aken
ELMER	Agway, Inc.
FLEMINGTON	Hunterdon Agway
FREEHOLD	Dill's Raceway Equip.
GLASSBORO	Gloucester Coop. Lawn Center
MOUNT HOLLY	Mount Holly Farm & Home
PENNINGTON	Rosedale Mills
PRINCETON	Rosedale Mills
VINELAND	Bernie's A&N
WOODSTOWN	Agway, Inc.
WOODSTOWN	Woodstown Ice & Coal

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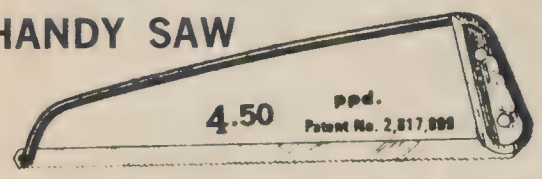


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WHEELER SAW COMPANY, Belchertown, Ma. 01007
(Ma. residents add 3% for Sales Tax)



Eggs from this high-rise, deep-pit structure feed into Jim's processing plant, left, which also serves two automated conventional houses not visible.

Eggbeat

by Earl Ainsworth

Poultrymen are fast learning the two-step . . . producer to retailer to consumer. The three-step, once the rage, is commanding less of a following, much to the alarm of wholesale egg dealers who find themselves being omitted as more and more producers hook up directly with retailers for the benefit of both.

LATEST signs of bypassing the egg wholesaler come from Whitesville, New York poultryman Jim Fitzpatrick, who reports he is integrating his 120,000-bird caged layer operation with a group of retail stores affiliated with Midstate Big M and P&C, both supermarket chains headquartered in Syracuse.

He sums up his reason in one word — **security.** Situated in the southwest corner of Steuben County, Jim is where egg markets aren't the strongest. He has always sold mainly to wholesale dealers, but things are changing. "These dealers are getting fewer and stronger," he explains, "so it's becoming more of a 'take it or leave it' proposition."

He sees his move to hook up with the retail outlets as a measure which will take some of the guesswork out of future decisions and bring a more attractive price for his eggs in the process. The Urner-Barry price quotation **plus** a few cents is a welcome change from the days of **minus,** even though delivery is involved.

"I'll be getting a higher-than-wholesale price to put the eggs in the stores," Jim explains, "plus security in the market because the stores, as they take my eggs, will be building equity in the form of part-ownership in my operation." He goes on to explain how this growing liaison will solidify and increase his base of expansion, pointing out that "the days of my putting up a new building without an already-guaranteed market are long gone."

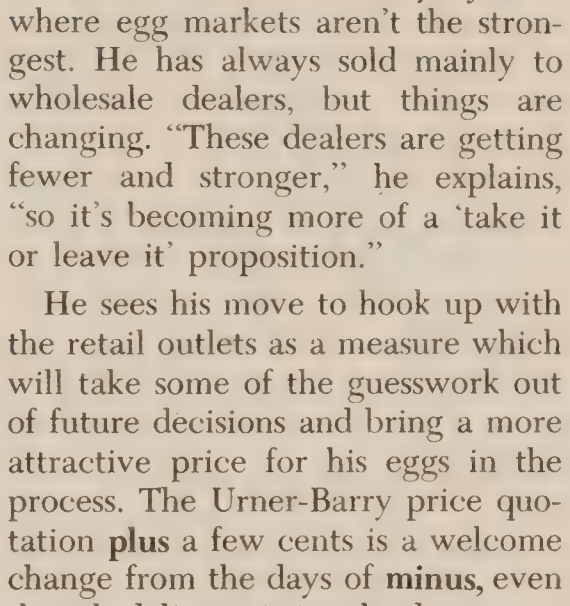
Already, half of Jim's daily production hits the road aboard his trucks bound for some 25 stores that have thus far entered the program. Richard Balduzzi, president of Midstate Big M markets, and the man most closely involved in the retail end of things, explains that it's "strictly a volunteer setup." By that he means that only stores in the chains that want to are hooking up with the Fitzpatrick operation. As mentioned before, there are presently 25, "but the target," Richard adds, "is around 60."

What makes it attractive to the retail store people is the potential for partial ownership. Let's take one dozen eggs sold through a participating store. Obviously, there is a difference between Jim's total cost of putting that dozen there and what the store paid him. A certain part of that difference on each dozen is accrued "on paper" until, some time in the future, it becomes enough to buy a certain percentage of Jim's operation. Thus, part ownership is accrued by the retailers as more stores take more eggs.

Mr. Balduzzi remarks that from the retailer's standpoint, considering the already thin margin on products and the sharp competition in the grocery business, "you can't lose." The stores are paying the same for eggs as they were before, but getting equity (and perhaps a more uniform product) at no additional expense.

P&C has a separate direct-buying system with other producers for cer-

(Continued on page 8)



Jim Fitzpatrick pauses next to the grader that processes eggs from three automated houses . . . two conventional and one high-rise deep pit.

See the BETTER BEARCLAW spreaders at these dealers:

NEW YORK

Adams
C. N. Snyder & Sons, Inc.
Addison
Addison Farm Equipment Co.
Akron
Blew Equipment, Inc.
Bangor
John Southworth Farm Supply
Barton
Coleman Farm Supply
Batavia
Batavia Farm Equipment, Inc.
Bath
Bath Truck & Tractor Co.
Brant
Gugino Farm Equipment
Canandaigua
Aldrich Farm Equipment, Inc.
Canastota
White's Farm Supply, Inc.
Candor
Farm Equipment Store
Canton
Robinson Farm Equipment Co., I
Cazenovia
J. C. Lucas & Sons, Inc.
Cherry Valley
Hayner Bros., Inc.
Conquest
Burke's Hardware & Garage, Inc.
Cortland
Maxon International, Inc.
Dansville
K. G. Richmond, Inc.
East Amherst
H. H. Pfennig, Inc.
Falconer
Kafferlin International Sales, Inc.
Fonda
Youngcrest Implement Corp.
Fredonia
Fredonia Farm Supply
Gasport
Lisle & Ricker
Geneva
F & W Equipment Co., Inc.
Herkimer
S. C. Legg, Inc.
Hudson Falls
Northway Equipment Co., Inc.
Kinderhook
Columbia Tractor, Inc.
King Ferry
S. K. & M. Implement Corp.
Livingston Manor
Livingston Manor Airport, Inc.
Melrose
Calhoun Equipment Co., Inc.
Mendon
Saxby Implement Corp.
Middleburg
River Implement Co., Inc.
Millbrook
Reardon-Briggs Co., Inc.
Millerton
S. E. Kimball & Sons, Inc.
Mooers
Dragoon's Farm Equipment
North Java
Ortner's
Norwood
Norwood Motor Sales, Inc.
Oneonta
West End Implement Co.
Perry
Walkley Farm Equipment Corp.
Rochester
Rochester Tractor, Inc.
Salem
Salem Farm Supply, Inc.
Sangerfield
White's Farm Supply, Inc.
Seneca Falls
Seneca Service Center, Inc.
Springville
Lamb & Webster Corporation
Syracuse
Reliable Farm Supply, Inc.
Theresa
Pete Giltz Implement Co.
Watertown
Taylor Implement, Inc.
Wolcott
IH Sales & Service
Yorkshire
Helbig Equipment Co., Inc.

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Damaged sides? No problem. All 500 boxes are rugged. In fact, on metal-sided models, box sides are guaranteed for life. If sides ever rust through—we replace them free! (Models 530, 540, 550 and 555 belonging to original owner. Labor not included.)

Uneven spreading—a big hang-up. So we mount paddles at a greater angle (and use extra paddles per foot of shaft) for a more even pattern left, right...and center.

Twisted boxes? Our new "A-frame" pulls straight from hitch to axle. Even with rough terrain and heavy loads, the box holds up. No stress. No shock. No bending.

Other breakthroughs: Square beater shafts (for extra strength). Curved paddle claws for aggressive handling of tough, frozen manure. Beefed-up PTO's with double the capacity (for high hp tractors). And infinite hydraulic apron speeds (555 only).

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Harry Klotzbach (right) and son Leo look at soybean crop in field next to one of their poultry houses.

Poultry farm

Oakfield, Corfu, South Alabama, Basom . . . none of these names of localities would be recognized by very many northeasterners. However, if I located a farm as being near the Batavia Downs where the nags lure the bettors, then I'd have most folks oriented!

Anyway, the farm in question is operated by Harry Klotzbach and his son, Leo, near Basom, New York. It involves 423 acres (26 of which are rented) . . . primarily a poultry and cash-crop operation.

Officially known as OK Farms, its major enterprise normally is 20,000 laying hens, but this has been expanded to 34,000 birds. A building once used as a cage-brooder house serves now to house 13,500 laying hens in double-deck cages.

Another house has a flat-deck arrangement with walk-through alleys between cage rows. "We get a higher percentage of cracked eggs in the flat-deck house with its egg-collecting belts," Harry comments. There are eight birds in each cage (24×18 inches).

OK Farms has an egg grader, operated by four women who are neighbors of the Klotzbach family. Eggs go off the farm in retail packages to producer-wholesaler Alan Hainsworth of Mount Morris, New York.

Crops here included 270 acres of corn in 1973 . . . all to be harvested for grain and fed to laying hens. "A good thumb rule," Harry advises, "is that it takes a bushel of corn per hen per year, plus supplement." Drying facilities . . . and storage for 20,000 bushels of shelled corn . . . facilitate corn-handling at the farmstead.

Soybeans

Another crop was 19 acres of Harosoy soybeans, which the Klotzbachs may feed after roasting . . . or sell, depending on relative prices of supplement and whole beans. In either case, the on-farm Mix-Mill will be used in making up the poultry rations.

Oyster shell, by the way, is presently used at the rate of 80 to 90 pounds per ton of poultry mash . . . arranged so the knife-chewing shells

(Continued on page 9)

CHEVY FARM TRUCKS

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Wide range of models

Available Six and V8 power, single or tandem axles with capacities up to 34,000 lbs., 4- and 5-speed manual transmissions and Allison automatics. Ideal for stake, flatbed, van and other body applications.

Building a better way Chevrolet to serve the U.S.A.

Eggbeat . . . . .

(Continued from page 6)

tain stores. Some 25 years old, this program has been tremendously successful, and P&C president Art Hazlett emphatically points out that it will be unaffected by the Fitzpatrick operation.

As with most any marketing method, however, there are problems involved.

Distance is a problem. Jim's relatively-distant location necessitates long runs with delivery trucks. If he is to justify an extra 150-mile trip, it will almost surely have to involve more than just one new store. Oversupply of certain egg sizes, as well as transitional problems, will likely occur.

It appears that the poultry industry is still living up to its reputation for fast change. The small poultryman must be in a special marketing situation, and use wise management, to survive. Things don't look any easier for the egg wholesaler who is fast becoming the victim of the two-step. And if producers with the size of business like Jim Fitzpatrick's are to survive, they also must stay alert to change!

American Agriculturist, November, 197



STARTER HOUSE

Louis Dunckel has a recently-built house for starting pullets. It measures 516×40 feet, has four double rows of flat-deck cages (eight rows in all).

"Flat deck cages have an advantage over multiple-deck cages," Lou reports, "in that light intensity tends to be more uniform." He puts 22 chicks in each cage (2×3 feet) . . . 40,000 chicks in each batch. On the average, 21 birds per cage normally come out of the facility at the end of the 20-week growing period.

Fan-equipped space heaters, fired by LP-gas, keep the brooder house warm. There are six inches of fiber glass in the ceiling, three inches in sidewalls. "Doghouses" over fan openings prevent leakage of light into the windowless house.

Concrete pits under the cages are one foot deep, and are cleaned by a 14-hp lawn tractor equipped with paddle-blades. — *G.L.C.*

Tax Reporting – Many leaders of the poultry industry claim that the cash method of reporting income results in overexpansion of egg production and thus generates the "boom and bust" pattern so typical of the industry.

An analysis of the situation by Professor Olan Forker of Cornell University shows a possible "swing" in gross income of as much as 96 percent by the cash method of reporting. This is made possible by deferring or declaring payment of expenses, and doing the same for income . . . depending on which taxable year is better taxwise.

If the accrual method were used, all of the costs incurred in prepayment or early purchase would show up in inventory. Professor Forker believes that the accrual method, if it were mandatory on all egg producers, might reduce the incentive to overexpand production as a result of stimulus by rising prices.



Cornell researchers have published the "Poultry Farm Business Summary" for 1972. Here are some figures from that publication:

NEW YORK POULTRY FARM SUMMARIES
1969, 1971 & 1972

Factor	1969	1971	1972
Number of farms	43	40	38*
Man equivalent	2.9	3.2	3.2
Number of hens	13,700	16,400	20,045
Total investment	$102,192	$148,000	$149,684
Total receipts	$138,458	$146,090	$160,944
Total expenses	$109,215	$132,843	$149,476
Av. price per doz. eggs	45.6¢	33.8¢	31.8¢
Eggs per hen	215	219	227
Hens per man	4,720	5,125	6,264
Lbs. feed per doz. eggs	4.8	4.3	4.2
Labor income per operator	$ 16,893	$ 2,532	$ 1,146

*Includes only layer operations, omits 10 pullet-rearing operations on which information was also gathered.

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4400 . . . everything that made the frisky 2500 HydraCat a favorite, but with more size and power. Here's a powerful loader with a 44 h.p. Ford water-cooled engine (or a 30 h.p. air-cooled engine) that gets things done! T-bar controls make you an expert operator the first time you use it. Hydrostatic drive keeps the goin' smooth at any speed; keeps maintenance low, and work-power fast. Here's a skid-steer loader you'll have to operate to believe. The secure overhead guard with screened sides, self-leveling bucket, adjustable seat, quick-switch tool bar, and much more, are standard equipment. Even as hefty as the new 4400 HydraCat is, its snappy skid-steer maneuverability gets into the tightest corners and gets the work done fast. Gehl HydraCats . . . economy 2500, or beefy 4400 . . . for dozens of uses all around the farm. Mail this coupon today for more information.

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Poultry . . . . .

(Continued from page 8)

bypass the hammers of the Mix-Mill. "The only ground limestone we feed is what is in the supplement we use," Harry reports.

"The wave of the future," he goes on, "involves recycling poultry manure through the corn plant to grain, and back through the birds. We have enough land to do this for the number of birds we have, and hopefully we'll be able to schedule manure – spreading so we won't have insurmountable environmental complaints."

Mechanics

The Klotzbachs are skillful farm mechanics, and have just had built a new heated shop (40×80 feet) featuring overhead doors 12 feet high and 16 feet wide. It boasts not only heat, but a toilet, an office, and other comforts of home.

In an older shop, Leo and Harry built their own no-till corn planter in 1973. They planted 150 acres with it, and report good results. One 21-acre field . . . even in a wet spring . . . was planted the day before Easter Sunday on corn stubble. Herbicides for their no-till corn included Bladex only, or Lasso plus AAtrex.

There is plenty of work to go around at OK Farms, but it's not all work and no play. A five-acre pond on the second farm not far from the homestead offers recreation room. Besides, in this noisy and fast-paced world, most any farm offers elbow room and comparative tranquility!— *G.L.C.*



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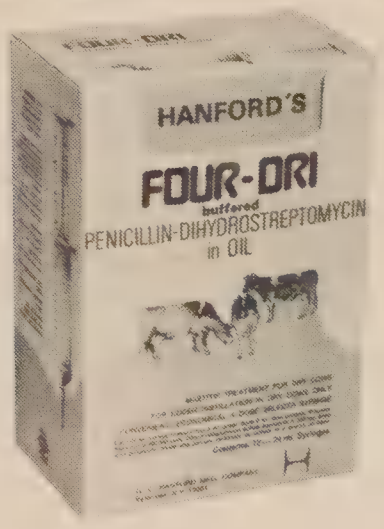
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Blackbird damage like this claims as much as 30 bushels of corn per acre in some areas of New York State.

Blackbird blues

A flock of redwings settles in a cornfield and starts feeding. Some pick up kernels dropped on the ground. Suddenly one bird doesn't feel so chipper and commences to fly erratically here and there, crying out in alarm and generally kicking up a fuss. Frightened, the whole flock leaves.

The reason was Avitrol, a selective bird bait tried with great success this year by several blackbird-plagued corn growers in New York. Fifty percent of those who tried it were interviewed, and reported 90 to 100-percent control. Approved for use in standing field corn only, this substance must be applied aerially under government supervision. Jim Forbes, a U.S. Fish and Wildlife Service man from Albany, who trained the pilots and headed up the survey, tells us about it:

"Avitrol is designed for the guy who loses 10 to 30 bushels of corn per acre to the blackbirds," he says, "with the economic cut-off point resting at about three bushels loss."

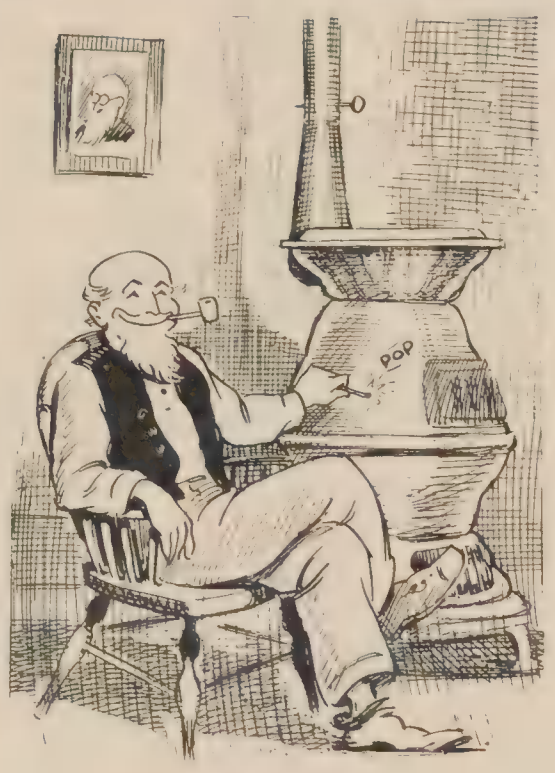
He goes on to explain that only one kernel in a hundred that are dropped is treated with Avitrol. An average of only one in 500 birds ingests the substance, a fact that pleases many environmental scientists. Only a third of a field need be treated to protect the whole thing.

The pilot 'lays swaths of treated grain seed mix across the central area of a field. Three pounds of treated corn are applied per acre. For the sake of game birds, none is laid within 40 feet of the edge. Three applications are made one week apart, with a cost in the neighborhood of five dollars per acre protected.

So far, there are eight aerial crop sprayers certified for Avitrol application in the state, with a probability of more getting in next year, since the blackbird-damage season generally falls during a gap in their work schedule.

Such elaborate measures for blackbird control may seem unwarranted until it is remembered that New York State **leads the country** in corn damage due to these feathered critters. What is attractive about Avitrol is its low-kill level, and almost non-existent effect on songbirds and game fowl. For further information, farmers should contact the nearest aerial crop sprayer.

The Song of the Lazy Farmer



At any sign of winter storm my first thought is of keeping warm; and doing that will e'er require a real roaring wood-fed fire. There are some "modern" folks who hold the only way to beat the cold is with a fancy furnace that takes orders from a thermostat. These characters will sit around in rooms where there is not a sound, pretending that a heat machine that's hid away someplace unseen is keeping them as warm as toast, and they will prob'ly even boast about their glorious draft-free heat while cold air whistles 'round their feet.

That kind of comfort, seems to me, would be complete monotony. I'm still a country boy, I guess; I'd rather have unevenness than never hear a fireplace roar or see flames through a wood-stove door. My city friends, of course, deride a system that can scorch one side and leave the other shivering in air that has no warmth, by jing. But that's all right 'cause you can turn 'fore either side begins to burn, or move until you've found a spot that's not too cool and isn't hot. I've never seen a thermostat that gives quick choice of heat like that.

American Agriculturist, November, 1973

Dates to Remember

Nov. 3 - Rockingham Craftsmen Fair, Kingston Town Hall and Kent Memorial Room of Congregational Church, Kingston, N.H.

Nov. 3 - Meeting of Young Farmers and Teachers of Agriculture, 10 a.m., Stockbridge Valley Central School, Munnsville, N.Y., to discuss organizing statewide Young Farmers' Association and affiliating with national chapter.

Nov. 7-8 - Vermont Farm Bureau Annual Meeting, Auditorium, Barre, Vt.

Nov. 8 - Annual Meeting Rhode Island Farm Bureau, Yankee Motor Inn, Post Road, Warwick, R.I.

Nov. 8-13 - Keystone International Livestock Exposition, Harrisburg, Pa.

Nov. 10 - NY Hereford Association Annual Meeting, Syracuse, N.Y.

Nov. 11-14 - New York Farm Bureau Annual Meeting, Granit 2, Kerhonkson, N.Y.

Nov. 11-16 - 65th Annual Meeting American Society of Agronomy, Hilton Hotel, Las Vegas, Nev.

Nov. 12-13 - Massachusetts Farm Bureau Annual Meeting, Hearthstone Motor Inn, Seekonk, Mass.

Nov. 12-15 - Annual NYS Pesticide Conference, Alice Statler Auditorium, Cornell University, Ithaca, N.Y.

Nov. 12-20 - 107th Annual Session National Grange, Radisson Cornhusker Hotel, Lincoln, Neb.

Nov. 13-14 - New Hampshire Farm Bureau Annual Meeting, Highway Hotel, Concord, N.H.

Nov. 13-14 - Inter-State Milk Producers Cooperative Annual Meeting, Marriott Motor Hotel, Philadelphia, Pa.

Nov. 14-16 - Maine Farm Bureau Annual Meeting, Civic Center, Augusta, Maine

Nov. 15-16 - 19th Annual Convention Pennsylvania Holstein Association, Seven Springs Mountain Resort, Seven Springs, Pa.

Nov. 17 - Livestock Field Days, Cornell University, Ithaca, N.Y.

Nov. 18-21 - Pennsylvania Farmers' Association Annual Meeting, Penn Harris Motor Inn, Camp Hill, Pa.

Nov. 19-25 - International Livestock Exposition, Chicago, Ill.

Nov. 25-29 - National 4-H Congress, Chicago, Ill.

Nov. 27-28 - New Jersey Farm Bureau Annual Meeting, Ramada Inn, New Brunswick, N.J.

Dec. 2-4 - Cornell Seed School, Sheraton Inn, Ithaca, N.Y.

Dec. 18 - New York Agricultural Situation and Outlook Conference, Warren Hall, Cornell University, Ithaca, N.Y.

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by Roy Z. Kemp

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Windrowers

Cash Bonus direct from the factory on ■ Hesston Windrower							
If you buy ■ model	620	520	420	PT-12	PT-10	PT-7	1014
Before Dec. 31, 1973	$325	$275	$250	$100	$100	$100	$100
Jan. 1-31, 1974	200	170	150	75	75	75	75
Feb. 1-28, 1974	125	110	100	50	50	50	50
Mar. 1-31, 1974	60	55	50	40	40	40	40
Bonus subject to model, option and other equipment availability.							

Interest Paid to May 1, 1974 on above windrowers purchased and delivered prior to March 31, 1974.



HESSTON StakHand® Systems

Cash Bonus direct from the factory on a Hesston StakHand						
If you buy a model	SH60A	SH30	SH10	SM30	SM10 & 10W	SF30
Before Dec. 31, 1973	$400	$300	$100	$60	$20	$80
Jan. 1-31, 1974	270	200	75	45	10	60
Feb. 1-28, 1974	150	130	50	35	10	40
Mar. 1-31, 1974	100	85	40	25	10	20
Bonus subject to model, option and other equipment availability.						

Interest Paid to May 1, 1974 on above StakHand equipment purchased and delivered prior to March 31, 1974. StakMover 60 and StakFeeder® 60 included when sold with a system.



Forage Harvesters

Cash Bonus direct from the factory on Forage Harvesters		
If you buy a model	2000/150 (Base unit & head)	2000/100 (Base unit & head)
Before Dec. 31, 1973	$160	$125
Jan. 1-31, 1974	100	75
Feb. 1-28, 1974	70	50
Mar. 1-31, 1974	60	40
Bonus subject to model, option and other equipment availability.		

Interest Paid to May 1, 1974 on Hesston Forage Harvesters equipped with hay or hay and corn head purchased and delivered prior to March 31, 1974. Interest paid to October 1, when equipped with corn head only.

***Cash bonus earnings can apply even if your dealer does not have the desired equipment in inventory. Just order it and pay for it. Bonus will arrive when delivery is completed.**

Advance Payment/Cash Bonus plan includes the new Hydro-Static Model 6600 Windrower and new StakMover 60-A! See your Hesston dealer for complete information. All future delivery orders are based on dealers' acknowledged wholesale orders and machine availability.

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HOMETOWN 1973 U.S.A.

FIRST CLASS MAIL

GRANGE SUGGESTIONS

I have belonged to the subordinate Grange for 30 years and the Juvenile Grange for seven years before that; I am also a member of State Grange.

Today I am discouraged, and no longer feel like pulling my share of the load. I am fed up with long hours while petty discussions are carried on. To describe our last Pomona meeting might condense the Grange problems.

For a variety of reasons, it began in the forenoon half an hour late. Next we had to "honor" about six persons in a small hall where 70 persons were seated three-deep. Each one was announced singly, escorted singly and each time we had to rise, applaud and sit down. Why couldn't they have been announced all at once and escorted all at once? I mentioned this and was told, "The deputy would never have approved of it . . . not according to Grange rules."

If the foregoing was a problem, imagine the assistants trying to take up a "secret" password in such small quarters . . . and this took at least fifteen minutes. Why can't some of the rules be put to one side and common sense used, like taking the password at the door before the people even enter the hall?

The committee reports are long, drawn out and quite often repeats of forthcoming meeting dates. I suggest that the committee reports be posted rather than read . . . also all forthcoming dates that anyone wishes to announce. I'm positive this could help shorten the meetings.

The communications were read in full, even to specific instructions on how to find a certain Grange hall in a village in another county at a date no one could even begin to remember! I have a suggestion for this, but perhaps it isn't according to the rules. Why not simply state that a letter was received, from whom, and briefly what it concerns. Then post it on a bulletin board for reference by anyone interested enough to read it and write down any information they desire.

In this county, we receive a monthly Grange newsletter with forthcoming events in detail. If we're interested we can read it. We have a 25-minute weekly radio program and the moderator brings everyone up to date on all Grange news and activities. Yet at the Pomona meeting, she was called on to repeat many of the things we'd already listened to on the radio.

In the afternoon, four more "honored" guests had to be escorted to the master's station; then all were called on to speak. One guest who had been told he could use 15 minutes took 55! Not only was it very tiring and boring but about a subject which the majority of persons present were opposed to . . . namely, the State Grange headquarters at Cortland.

After the business and discussions (and more committee reports), we finally were able to recess for the program. Pomona usually adjourns by 4 p.m., so you can imagine how everyone felt when they hadn't even heard the program yet! Many were tired, many had farm chores to do, while others had evening meetings to attend.

About 60 percent of the Grangers left for home, even though they wanted to see the slides which one of the FFA farm-exchange students planned to show of his trip to Sweden. The lecturer had to feel very angry after she'd prepared a program. It was after 6 p.m. when some of the county Grangers reached their homes.

I believe the ritual needs to be condensed into one shortened version of the first four degrees. I believe all unnecessary readings and discussions should be dispensed with, even at the expense of hurt feelings. I would suggest fewer subordinate Granges, perhaps four to a county with more members in each. Make each Grange stronger, more social times meeting new friends, rid the communities of trying to maintain so many Grange halls at the high cost of upkeep. Quit long-distance travel required for officers such as the expensive Mid-Atlantic Conference.

Bring the Grange back down to earth with the degree work performed in a meaningful way, but in a shorter form. Promote youth drill and degree teams, not as a contest, but in place of the many contests which are so time-consuming, and that generate little real interest or rewards. Keep the youth in the county and build up the interest on a local level. If each county would do this, perhaps it would be the answer to a full hall once more.

I also wonder if it is necessary for so much "secret" work . . . in the past few years it is almost laughable. I know cases where non-Grangers have been allowed to sit through all the opening and closing ceremonies to see if they liked the meetings well enough to join. The password is so "secret" that the whisper can sometimes be heard across the room.

On the local level, I've never seen a member kept out because he didn't know the correct signal at the door. A new member sees this, so how much faith does he have in the organization?

Why not create a simple oath of obligation to have faith in God, uphold our country, and to believe in the goodness of home, family and friends and promise to practice faith, hope and charity. Instead of a secret password, have a verbal motto to repeat together at each meeting. It would not be hypocritical, and would be full of meaning.

Dispense with so many formalities, and shorten the business meeting in every way possible. Honor guests by name, but don't necessarily call on them to speak. Have as few "messages" as possible by the deputies from the state master as this can become very tiring and repetitious. Quit adding to the list of requirements of a "model" Grange for the deputy to score at his official visit. Some Granges can barely get the required seven members to attend in order to hold the meeting!

An increase in dues won't be the answer, for there isn't enough interest to hold members . . . and we don't need to spend even more money for "professional" staff workers. — *Mrs. Barbara Landon, Chaumont (Jefferson County), New York.*

CITIZENS' SUITS

I must respectfully take issue with your editorial, "Pandora's Box," dealing with citizen's environmental suit legislation. Before doing so I want to identify myself as chairman of New York State's Environmental Planning Lobby and as associated with several other environmental organizations. I am not a farmer, but for many years my family and I have owned and spent a great deal of time at a non-operating (except for hay which a close friend and neighbor dairy farmer cuts) farm property near Margaretville, New York.

I think that an existing case test illustrates the several points I want to make, particularly a strong objection to your posing the issues in a kind of class struggle framework — the "well-heeled opponent" who may be "a vacationer from New York City," suing "the poor tiller of the soil." (If such would be the, or a, principal result of the legislation, I think I would oppose it, too.)

The actual case is the vigorous opposition by Greene County farmers in the Schoharie Valley to a proposed second pumped-storage reservoir power plant near Breakabeen. The farmers, "poor tillers of the soil" . . . or reasonably successful, I do not know . . . are suing the New York State Power Authority. The suit is in the form of intervention in a proceeding before the Federal Power Commission from whom PASNY must secure a license.

Standing

The farmers have the standing to sue only because, beginning with the Storm King Mountain case, in the federal courts and before **federal** agencies, the "existing legal theory (does **not** now hold) that a person must prove damage to his own person or property in order to successfully sue . . . " Greene County itself (certainly a county more of farmers than well-heeled vacationers from New York City) has joined the Schoharie Valley farmers in the suit.

The single purpose of citizen's suit legislation is to do for the state courts what judicial rulings have done for federal courts. A number of states have enacted such legislation, most notably Michigan. Several dozen suits have been brought under the Michigan law, not a single one of which is against a farmer based upon farming operations. The great bulk of suits are against large manufacturing corporations.

Harassment

Fear of groundless suits brought for harassment is understandable, but courts have evolved remedies in dozens of other fields of law for such suits and actually have more potent remedies against such suits when brought by a representative of an alleged public interest than when brought for alleged personal or property damage.

The strongest reason for citizen's suit legislation, however, is a simple moral one. Unlawful acts should not be permitted merely because they are on such a large scale that a whole community suffers, and the person suing on behalf of the community has no strictly personal injury different from that of other members of the community.

An example is the suit which permanently enjoined the construction of the proposed Hudson River Expressway. Had the plaintiffs not been able to sue in a federal court, they would not have had the standing to sue, and the $200,000,000 for the project, wholly illegal, would have been spent, to the disadvantage of many tax-paying poor (and the not-so-poor) "tillers of the soil," as well as the "well-heeled (and not-so-well-heeled) vacationers." — *David Sive, New York City*

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NEW RFI SUPPRESSORS. No more radio and tv interference. No more static for (or from) the Cat's neighbors.
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RIBBED ALUMINUM BUMPER. Lightweight. But plenty tough.
CHROME PLATED CYLINDERS. Same as sophisticated aircraft engines. Sure, chrome costs more—but it means lighter weight, longer life and better heat dissipation.
CAT SKIS CANT. Which is another way to say Cat skis bank and bite into corners. So turns are sharper and more predictable.
V-SHAPED BELLY PAN. Deflects up to 80% of loose snow.
NEW TUNED EXHAUST beefs-up low and mid-range torque. Down at the rpm's where the one and only's muscle makes the difference.
SINGLE LEAF SPRINGS. Singles ride softer than multiples. And there's no chance for what we call interleaf friction. Which leads to what you call crummy handling.
LOW, FORWARD MOUNTED ENGINE. The weight's up front—on the skis—to make steering easier, more responsive.
FULLY FUNCTIONAL SHOCKS. Nobody can match the one and only's pitch and rebound control. And these two shocks are one big reason why.
NEW ALUMINUM, D[illegible] CLUTCH. For better [illegible] Better heat dissipation. An[illegible] better disc brake, to b[illegible]

TEMPERATURE WARNING LIGHT. Signals an overheated cylinder—before serious damage occurs.
NEW ZIP-START CIRCUIT makes manual choking ancient history. Just pull the lever—and then the starter. The throttle takes care of itself.
HIGH DENSITY FOAM soaks up the bumps. It's the best rear guard in the business.
TWIN-PAD CAM-ACTUATED DISC BRAKE. That's a long winded way to say shorter, faster stops.
SLIDE RAIL SUSPENSION. Nobody can build 'em like the originator. And one smooth ride on the one and only will prove it.
2/3rds CLEAT SPAN. Allows outside track bands to flex over bumps independently. So traction's better. With longer track life, too.
AIRCRAFT ALUMINUM CHASSIS. Rugged, heavy gauge. And riveted, just like an airplane.
NEW CHAIN TENSION MONITOR automatically adjusts to maintain the most efficient power transfer possible.
INTERNAL SUSPENSION SHOCK. Tunnel mounted to take the bruises out of bumps.
BRAKE LIGHTS. Big and bright for day or night.
[illegible]IE-CAST DROP CASE. Now [illegible] in—oil leaks are out. Good [illegible]
INTERNAL DRIVE SYSTEM. Power is transfered directly into the track. And that's more efficient. Quieter, too.

Yep. We've got a bundle of new ideas again, this year. Like the Cat's exclusive, float-type carb. And zip-start circuit.
But have you noticed? It seems like everybody's comin' around to the slide rail. And a forward mounted engine. And a riveted aluminum chassis
Are we worried? Nope. Listen. We were there first. And we're still first. Because to us, it's a whole system. And you can't beat the system with a bunch of imitation parts.

the one and only Cat

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LIVESTOCK



Shearers Short – New England Livestock Conservation, Inc. wants to publish a list of all sheep shearers in New England. If you know the name of a competent wool-gatherer, please send his name to the organization at P. O. Box 265, Boston, Massachusetts 02117.

Worm Shots – Deworming cattle is an easier job with the new injectable form of Tramisol said to be 95 to 100-percent effective. It is the first **injectable** worming material for cattle to reach the market.

Cleared by the U.S. Food and Drug Administration for the treatment of cattle infected with the nine major worm species . . . including stomach worms, intestinal worms and lungworm . . . Tramisol Injectable can be used on beef cattle and non-milking dairy animals of any age, and up to seven days prior to slaughter. For more information, write to: American Cyanamid Company, P. O. Box 400, Princeton, New Jersey 08540.

EIA in N.J. – New regulations in New Jersey provide that all horses reacting positively to the Coggins test for equine infectious anemia (EIA, or swamp fever) must be quarantined and branded for permanent identification. Such horses must be kept apart from other horses on their home premises, unless they are humanely destroyed or moved on a permit issued by the Department of Agriculture's Division of Animal Health. Permits will be issued to move the animals to slaughter plants, research facilities, or a new location, provided the location meets the Department's requirements.

Breakthrough – A new drug . . . quaternary ammonium compound . . . said to prevent feedlot bloat has been developed by Kansas State University researchers. Tests so far show the compound to be 100-percent safe and effective, but years of testing are ahead before the drug can be marketed. Forecast, though, are eventual savings to cattle feedlot owners of more than $50 million annually, plus substantial economic benefits to consumers as savings in cattle production are passed along.

Catalog – Curtiss Breeding Service announces its stockmen's supply catalog. Medications, accessories and other utensils common to the livestock business are available. Free copy available by writing to Curtiss Breeding Service, Division of Searle Agriculture Inc., Cary, Illinois 60013.

Lepto – The USDA has granted an Illinois laboratory a conditional license to produce two new vaccines against leptospirosis, a serious disease affecting cattle and swine.

The new vaccines protect against two types of infection caused by the bacteria *Leptospira hardio* and *L. grippotyhosa*, for which no vaccines have been available. Vaccines against a third type, caused by *L. pomona*, are already available.

Reduce Losses – New England Livestock Conservation, Inc., is an educational, non-profit organization that promotes safe handling of livestock throughout the six New England states and in northern New York State. Its efforts concentrate on working with the producer, shipper, packer and other interested groups, advocating methods of handling livestock that can lower the staggering $800 million yearly loss that occurs in the livestock industry. Such factors as bruises, improper loading, temperature stress, lack of precon ditioning, parasites, diseases, and the short-tempered human element are among chief contributors to this huge loss.

In its efforts to reach all concerned parties, NELCI offers many services, all free of charge. Literature on a variety of subjects such as control of cattle grubs, safety handling practices, winter hints, how many animals make a load, swine stress, jowl abscess cost, hot weather stress, and a variety of posters on safe handling are available. Group presentations, which include an identification display, films on safe handling and use of the step-type ramp, samples of damaged hides, and other information are available by request.

NELCI also publishes a monthly newsletter, *"More Money From Livestock,"* which contains timely information on management and handling methods. This is mailed to anyone requesting it.

The organization offers two scholarships to students in New England who show an interest in affiliating with the livestock or animal products industry. One $300 and one $200 scholarship will be awarded for the first time this year. NELCI also has informative displays at several fairs throughout New England.

Field directors John Norton and Robert Johnson handle the activities of NELCI and are anxious to assist anyone who is interested. For more information on displays, presentations, scholarships, literature, consultations and membership in the organization, write New England Livestock Conservation, Inc., Box 265, Boston, Massachusetts 02117.





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That's what many customers tell us. And about how all season long they have enjoyed the benefits of their chosen hybrids. Fast starts, vigorous growth, high yields.

BUT HARVEST IS THE PAY-OFF AND THE BEST TIME OF THE YEAR FOR THOSE WHO GROW THE BIG G. Whether harvested for grain or silage, northeastern corn growers get the good feeling of Funk's-G higher yielding capacity.

1974 will be a big corn acreage year for you. The year you especially want hybrids *proven* to yield big. Year after year. Funk's G-Hybrids.

Talk to your Hoffman Seed Man, now.

The Pennsylvania Agricultural Progress Days Silage Show competition is open to all brands. Yet, Funk's-G has won in 1967, 1968, 1969, 1970, 1972 and 1973. Dramatic proof of Funk's-G silage superiority!

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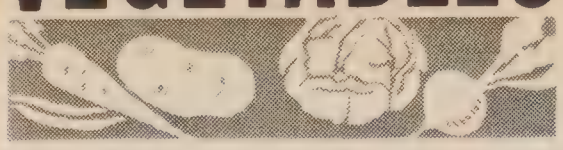
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VEGETABLES



New dry bean

A new, earlier-maturing small white dry bean, named Aurora, has been introduced by Cornell University in hopes of developing an industry of this variety in New York State. Small white beans are in demand in the East for processing, but most come from California where the growing season is longer.

Aurora matures in about 95 days. Planted in late May or early June, the crop can be harvested in late August or early September. The new bean is resistant to common bean mosaic viruses and tolerant to halo blight. Field trials show Aurora capable of producing 30 to 40 bushels per acre, and its cooking and canning qualities are said to be comparable to the California-grown beans.

Seed for the new variety will be available in limited quantities in 1974.

Beetle Beater – Colorado potato beetles chowed down some 15,000 acres of Suffolk County's (New York) potato crop this past season. Existing pesticides failed to control them. Final upshot was approval, after a careful review by the Environmental Protection Agency, of a one-time emergency application of Furadan.

It was too late to protect the 1973 crop, but growers hope the single application will cut down on the hatch and prevent the beetles from over-wintering in large numbers and returning to devour next year's crop. Furadan has been tested on potatoes since 1964 with excellent results; it is hoped that a full label will be granted in time for the 1974 season.

As much as anything, this situation points up the constant need to develop, test and register new pesticides to prevent growers from being caught in the power struggle between the bugs and the chemicals. Insects generally develop an immunity to any given pesticide in a remarkably short time . . . become "resistant," in the terminology of the entomologists.

Ripener – A new foliar spray that ripens tomatoes earlier is Ethrel, a non-toxic plant regulator developed by Amchem. Ethrel does the job by generating ethylene, which is nature's own ripening agent in tomatoes. Tomato growers testing the new compound report more ripe tomatoes ready for harvest 7 to 14 days earlier than normal, and average recoverable yield increases of from three to ten tons per acre.

Ethrel has been cleared by the Environmental Protection Agency for use on tomatoes and cherries. Clearance for apples, walnuts and filberts is expected soon.

Instant Gardens – Prof. Raymond Sheldrake of Cornell University reports visiting with a plant grower who sold 50,000 sweet corn **plants** in 1973 . . . at 10 cents each! Another grower had a "whole house" of pole beans at 35 cents per pot. Still another reported selling (for $5 each) 2,000 seven-inch tubes of morning glories. Ray predicts an expanding market for "instant gardens."

FFA winners

At the recent national convention of the Future Farmers of America, regional awards included:

Community action . . . Hamilton Chapter, Hamilton, New York.

Most active FFA chapters (gold emblem) . . . Housatonic Valley Chapter, Falls Village, Connecticut; Limestone Chapter, Limestone, Maine; Belvidere Chapter, Belvidere, New Jersey; Hamilton Chapter, Hamilton, New York; Grassland Chapter, New Holland, Pennsylvania.

Honoring 25-year sponsors of the FFA Foundation . . . Agway, Inc., Syracuse, New York.

Outstanding vocational agriculture instructors . . . New York Staters Leon A. Brown, Slate Hill; Donald G. Robinson, Sr., Gainesville; and Richard Strangeway, Grahamsville. Also Pennsylvanians John M. Graham, Butler; Robert Donald Hess, New Holland; and John Walker Johnston, Mercersburg.

Winners of awards and their FFA chapters in the North Atlantic Region included:

Bruce Osborne, Housatonic Valley, Connecticut (agricultural electrification); Stephen Purcell, Upper Bucks Tech, Pennsylvania (agricultural sales and/or service); Gregory Bell, Limestone, Maine (crop production); Allan Brisson, Middlebury, Vermont (dairy production); Timothy Weller, West Snyder, Pennsylvania (forest management); Mark Messier, Killingly, Connecticut (ornamental horticulture); James Cote, Limestone, Maine (outdoor recreation); and Lorence Sweatt, Colebrook, New Hampshire (poultry production).

Distinguished Service Awards . . . George Chrein, assistant principal-supervision, agriculture, John Bowne High School, Flushing, New York; George D. Kittredge, administrative assistant, New Hampshire Association for the Blind, Concord, New Hampshire; Robert S. Seckendorf, assistant commissioner for occupational education, State Education Department, Albany, New York.

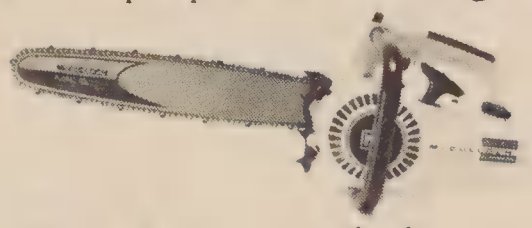
Starting at the incredible new low price of $99.95*, McCulloch now has any type of saw your farm needs.



Let Us Help You Choose the Right Saw for Your Farm. If you buy more saw than you need, or less saw than you need, you're not going to be satisfied. McCulloch has saws in every combination of power, weight and price, for every farm use, including the new Mini Mac 1 at the incredibly low price of $99.95*! And we have 26 years of experience in building the best. So let this guide help you find the one saw that's perfect for you.

The Lightest Saws for Lighter Chores. If you only need a saw to cut firewood in the winter, clean up storm damage in spring, trim and limb a few trees, build a tool shed – the lighter the saw, the better. And no saw in its price class is lighter in weight than our new 6.9 lb.** Mini Mac 1. Or consider the Mini Mac 1 Automatic with automatic oiling and a 12" bar for bigger trees.

The Do-It-Yourself Pro. If you have a lot of farm jobs, but not a lot of people to do them, light



weight *plus* power is the big consideration. Our Power Mac 6 is the only professional saw in the 6-lb. class** – that's why it's used by construction crews, tree services, other professional people who need a saw that will work harder than they do.

The Tough Saws for the Tough Jobs. The bigger and more complex your operation, the more power you'll probably need.



For timber cutting, extensive orchards, lots of fencing, continuing building projects – check our most powerful farm saw, the brand new Pro Mac 55; or our best-selling farm saw, the Mac 10-10 Automatic.

For the name of your nearest McCulloch dealer, look in the Yellow Pages under "saws."

Always insist on McCulloch Chains, Bows, Bars and Sprockets

Cut out: McCulloch Value Comparison Chart.

Take this with you when you go to buy your saw. Compare McCulloch saws with all the others – for power, weight and price – before you buy.

	McCulloch Model	Best For	Weight	Engine	Bar	Price
	World's Most Popular Saws — Mini Mac 1	Light chores: limbing, yard clean-up, firewood.	6.9 lbs.	1.8 cu. in.	10"	NEW LOW PRICE $ 99.95
	Mini Mac 1 Automatic		7.1 lbs.**	1.8 cu. in.	12"	$119.95*
	Mini Mac 6 Automatic		7.2 lbs.**	1.8 cu. in.	14"	$136.95*
	The Super Light weight Pro — Power Mac 6 Automatic	Heavier do-it-yourself jobs; orchards; fire wood; building.	6.9 lbs.**	2.0 cu. in.	14"	$169.95
NEW	The Tough Saws for the Toughest Jobs — Mac 10-10 Automatic	Timber; extensive orchards; fences, building projects.	12.4 lbs.**	3.3 cu. in.	16"	$194.95*
NEW	The Tough Saws for the Toughest Jobs — New Pro Mac 55		12.5 lbs.**	3.5 cu. in.	16"	$209.95*

Automatic models automatically oil their own bar and chain as you cut, to extend the life of these parts.

McCulloch

McCulloch Corporation, 6101 West Century Boulevard, Los Angeles, California 90045

*Manufacturer's suggested list price, including bar and chain. **Weight less cutting attachments.

Northeast FARM EXPERIENCE



Peter Stephens stands next to a group of older heifers feeding from barn-side bunk.

HEIFER HOTEL

Genoa, New York, farmer Peter Stephens is a heifer specialist. In 1968, he left his job as a farm credit officer at a bank and decided to try his hand at raising dairy replacements. Six years and hundreds of heifers later, Peter has progressed to a modern, 350-head "heifer hotel" that serves six good-sized dairies in the area.

Barns

A concrete block barn measuring 132×40 feet adjoins a 184×50-feet pole barn he designed himself. Both barns have alleys of freestalls which, contrary to tradition, run perpendicularly to one long side of the barn. A bunk feeder runs along the other (open) side and is filled from a mixer wagon that moves along a concrete runway on the outdoor side of the bunk.

Seven sizes of freestalls, ranging from 2×3 feet to 4×6½ feet, accommodate six groups of heifers separated by wood partitions. The groups, separated according to weight and age: three to five months, six to eight, nine to 12, 13 to breeding age, just bred to six months bred, and those bagging and ready to return home.

Diet

A mixture of silage, minerals and salt comprises the heifers' diet. A 20×70-feet oxygen-limiting silo holds haycrop silage, while a trench 180 feet long holds corn silage. "I'd rather feed more haycrop silage and less corn silage," admits Peter, "but as yet my cropping system isn't adjusted to yield more grass than corn.

"In my opinion," he asserts, "the best thing for heifers is haycrop silage because they don't get fat. They form good belly, good bones, and have that lean, racehorse look." This year, Peter's haycrop silage tested 17-percent protein. The Stephens feed three times a day, giving grain only to heifers under a year old.

Peter owns 25 or 30 of the 350 heifers. The rest are raised on contract. "I charge $17.50 per month per heifer," he explains, "unless a man brings fewer than 50, in which case I charge $18. Also, there are a few dealers who bring heifers to be kept only, say, from November to May. Their rate is $20 per month per heifer."

The rate includes more than just feeding. Peter does his own vaccinating and other vet work, except in the case of breeding problems or something serious. Each heifer goes home carrying a calf. Peter's three registered bulls rotate shifts in the pen designated for breeding. If AI is desired by the dairyman, it is extra and will cost more, beyond the basic rate.

As might be expected, it takes a bit of coordination and timing to keep a steady flow of heifers going through the barns. "We have some people who want to bring just a few heifers for just a few months, but I can't afford to take them," he explains. "It upsets my operation."

Each heifer, if not registered, is photographed for identification purposes, and all are tagged. Peter tries to keep his times of heavy movement in and out confined to a couple of months in the fall, a couple in the winter, and in the spring.

Business for this heifer specialist has been booming. He is thinking of building another barn that would raise his capacity to five or six hundred. This depends on availability of land to produce the required forage. Also under consideration is the use of a complete liquid feed that can be mixed with the silage. Peter says this would be easier to feed than dry feed, since only about four ounces per heifer per day is needed.

Right now, Peter wishes he owned more heifers and contracted less, but he admits the profitability of that proposition changes with time. His replacement-raising setup is a well-managed, profitable operation, and he considers his move from the bank to the farm a wise one. So do the dairymen he serves. — *E.P.A.*

FORMULA FOR LONGEVITY

We've all heard the theory that dairymen are demanding such high performance standards from their cows that they literally "burn them up." Henry and Joe Beneke, owners of Willowbrook Farm, Millerton, Dutchess County, New York, are among the few dairymen who milk 150 cows, consistently maintain a rolling herd average of well over 16,000 pounds per cow, and over 600 pounds fat, and still have extraordinary longevity in their herd. They had 14 cows listed in the 1973 DHIC Production Achievement Awards with an average age of 11.9 years. How do they do it?

"You've got to have a system," stresses Joe as he strides down a row of cows laced with a fair share of 10-year-olds. "And once you've got that system, by golly, you've got to stick to it!"

The Benekes are real managers and quality forage is at the top of their good-management list. Henry gets after the alfalfa early in June and, one way or another, it gets harvested. If it's not good drying weather, the crop goes into a concrete stave silo as haylage. Joe is quick to point out the sometimes-forgotten fact that good haylage can be made in concrete silos, as well as in oxygen-limiting units.

The second week of July, the second cutting of hay is ready to go down before it loses that valuable protein. And in August, the Benekes are ready for the third cutting. They end up putting about 150 acres of hay into the silo and 250 acres into the mow.

Two more concrete stave silos await corn silage, while an adjacent 20×50-foot oxygen-limiting unit holds a mouth-watering supply of high-moisture ear corn (HMC).

The hay, haylage, corn silage and HMC are just ingredients in the Benekes' feeding system. "And it's the system," reemphasizes Joe, "that is the measure of the dairy."

First thing in the morning, Henry sees that each cow gets 15 to 20 pounds of HMC. At 9 a.m., they get a healthy helping of "half and half" . . . half corn silage and half haylage. In the afternoon they get hay and at night haylage in the bunk. Each cow also gets up to 10 pounds of 20 to 30-percent-protein commercial grain, depending on the protein of the roughage.

In addition, the Benekes make sure their cows are comfortable. "In the summer, I only let the cows out for exercise in the morning and evening when it's cooler," says Joe. "We don't send 'em out to fight the heat and flies all day."

During the day, the cows stay in their tie stalls while a series of powerful fans continually create a gentle breeze throughout the barn. Due to air currents, very few flies accumulate inside the Beneke barn. One man is employed solely to tend cow comfort and feed punctuality. He does a little gardening on the side.

If quality forage and thorough cow care are the first two ingredients of the Benekes' system, proper selection of cows is the third. "We export some young heifers every year to foreign countries," confides Joe.

Feet and udders rank highest on

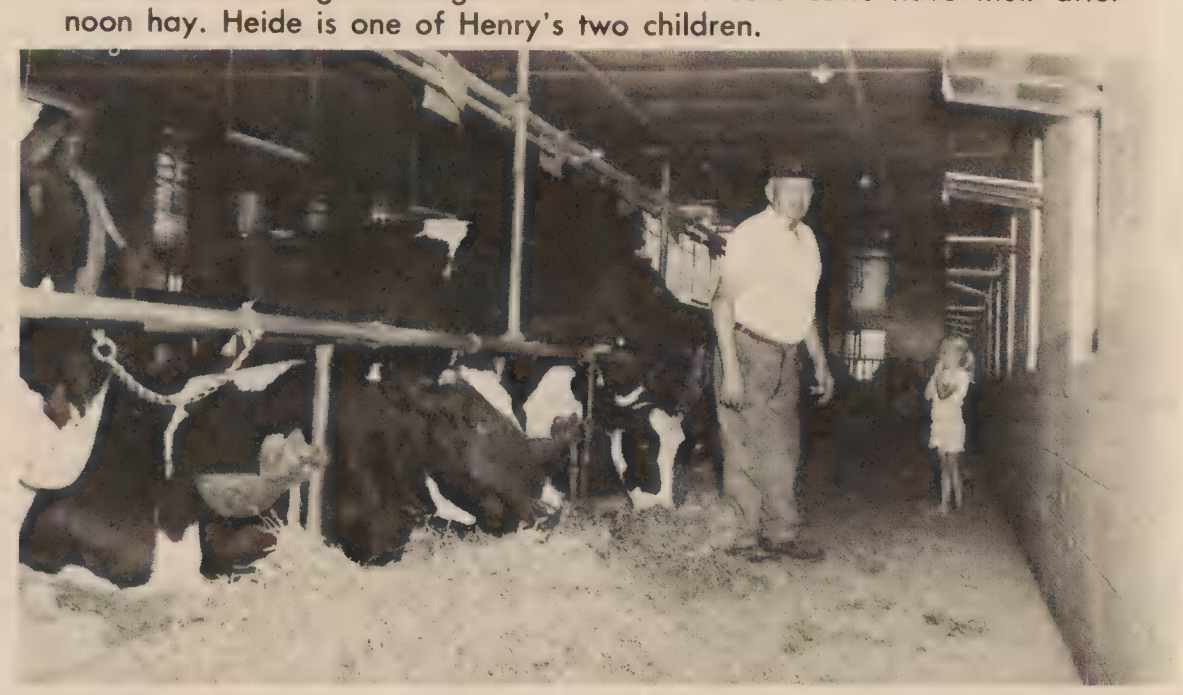


Dave Tetor, Dutchess County field crops and dairy agent, helps Joe look for alfalfa blotch leaf miner damage in some lush second-cutting alfalfa. The miner is a problem in the Hudson Valley.

the Benekes' list of things to look for in a prospective herd member. Joe has been in the registered Holstein business for many years, but has managed to stay production-minded when looking at type. Cow families are very important when looking for longevity. His cows are big cows — a lot of range. This means capacity, and in Joe's book, maybe more durability. His cows average over 1,400 pounds of body weight.

The Benekes are fortunate in many ways. Joe's other son, George, is a veterinarian ten miles from the farm. That doesn't hurt. They have an abundance of rented land, and no labor problems. All this potential is by no means unique, but it takes more than potential to create a dairy herd of 150 with high production and longevity. This is where the Benekes come down hard. "You've got to have a system!" — *E.P.A.*

Joe Beneke and granddaughter Heide make sure cows have their afternoon hay. Heide is one of Henry's two children.

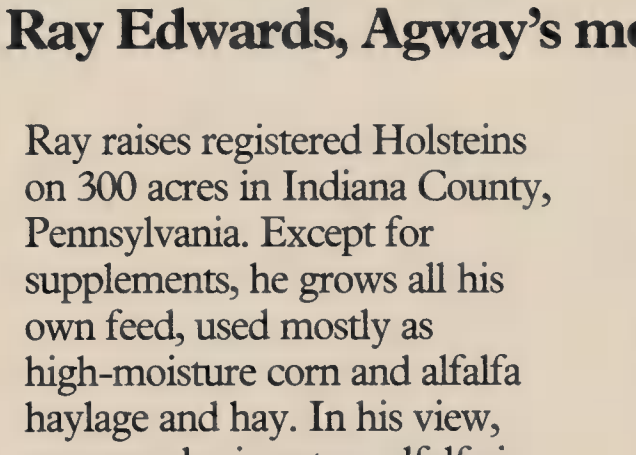


Left to right: Harvey Gamble, Agway crops specialist; Ray Edwards, dairy farmer; and Roger Rufener, Agway dairy Enterprise salesman, examine the first cutting of spring-planted, direct-seeded alfalfa.

To Ray Edwards, Agway's most important input is the Dairy Enterprise Salesman

Ray raises registered Holsteins on 300 acres in Indiana County, Pennsylvania. Except for supplements, he grows all his own feed, used mostly as high-moisture corn and alfalfa haylage and hay. In his view, anyone who is not on alfalfa is *"missing the boat."*

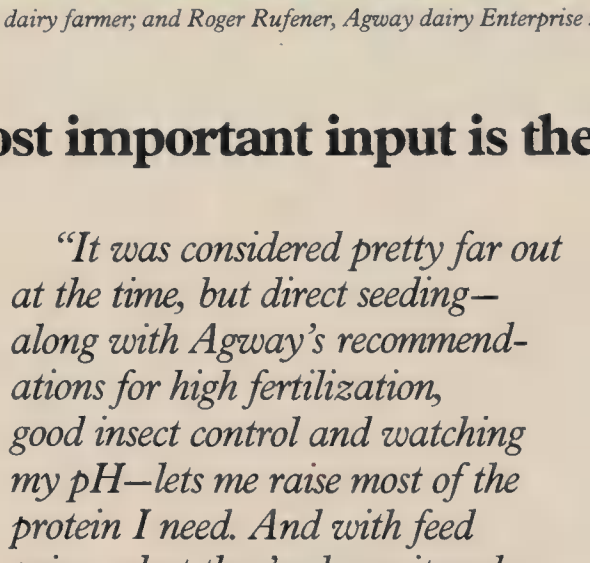
"What's Agway's biggest contribution to my operation?" asks Ray. *"It goes back to six or seven years ago when the Agway Dairy Enterprise Salesman helped me talk myself into a direct-seeding program for alfalfa.*



Roger Rufener, Agway Dairy Enterprise Salesman, sweeps a field to check for leafhoppers on one of his visits to the Edwards farm.

"It was considered pretty far out at the time, but direct seeding—along with Agway's recommendations for high fertilization, good insect control and watching my pH—lets me raise most of the protein I need. And with feed prices what they've been, it makes all the difference.

"As a matter of fact," adds Ray, *"I don't see any way to stay in this business today without going to alfalfa haylage and hay."*



With a 16,000-pound herd average, testing better than 3.8% butterfat, and with nationally recognized cows like Green-Banks Marquis Prime (Excellent) who led the herd in production with three lactations of over 20,000 pounds, Ray has to have a point.

Ray's feeding program also includes Agway supplements and Agway Liquid Protein Supplement (LPS) fed free-choice to his replacement heifers. He and salesman Rufener are currently discussing the potential value of going more heavily into high-moisture corn.

If you'd like some good ideas on cutting feed costs while maintaining top production, just call your local Agway store and ask for a Dairy Enterprise Salesman.

Farm Enterprise Service AGWAY

Reducing pollution potential

By Dr. Bill Pardee

POLLUTION continues to grab headlines as public concern spreads. Watch this closely, as it is bound to affect your farm practices. Certain soil-conserving practices may become mandatory. And limits may be placed on the times, rates and places you can apply fertilizer and spread manure. Some limits may not come for years, but others are practically upon us.

A sign of the times is the so-called "Tills Bill," named after its sponsor, that passed both houses of the New York State legislature this past spring. This called for local soil and water conservation districts to set up plans to reduce erosion and water pollution by soil in runoff water. It was aimed mainly at construction activities, but clearly brought agricultural land under its blanket.

The governor vetoed this bill, not because he opposed its goals, but because it lacked clear performance standards and enforcement teeth. He requested resubmission of the bill, with those additions. The bill is now being re-drawn with this in mind, and sooner or later some form of it will become law.

All these are part of a major shift in public thinking, which once held that man's home was his castle and that what he did with his land was his own business. Those days are disappearing fast, as people find their own land and water quality affected by activities upstream. Increased desire for clean water for recreation, for fishing, boating and swimming is central to the issue, but so is the increased overall concern to achieve a cleaner environment.

Legislation affecting land use and management is new in New York, but laws similar to this bill in one respect or another are already in the books in 14 states, including Maryland, New Jersey, Vermont, Iowa and Washington. Some are relatively mild, and some are not yet being enforced. But more laws are coming, and they are likely to be stiffer.

Agriculture is usually just one of the industries covered. Nevertheless, some of legislation is aimed squarely down the throats of farmers. Farm magazines, including this one, will continue to keep you up to date on details as they develop.

For now, let's look at the realities of the situation. Just how bad is agriculture as a polluter? Where does most agricultural pollution occur? And most important, what can you do to reduce your own pollution potential, if only to keep the heat off yourself and your neighbors.

Farm pollution centers in three general areas. Worst by far is soil erosion, which adds millions of tons of soil annually to our national waters. This fills lakes and reservoirs with silt, and carries phosphorus and other nutrients to stimulate weed and algae growth in streams and lakes.

Not all soil comes from farmlands. In fact, geological history is written in constant erosion and deposition of rocks and soil over eons of time. But farmland erosion can be both dramatic and obvious. So it draws widespread attention.

Manure is another sore point. It's ironic too, since manure consists almost entirely of water and undigested plant materials that stem from the soil. It's a fine natural product with many merits, but if mishandled it stinks! And it is rarely pretty. Odor and appearance are no problem way out in the country, but neighbors keep getting nearer. Farmers close to town can become unpopular in a hurry by spreading manure at the wrong time.

Nitrogen fertilization is another hot topic, with limiting legislation a distinct possibility some time in the future. Big problem with nitrogen is its solubility and the ease with which it leaches into groundwater supplies or runs off into streams and lakes.

All these **are** problems, but when we put them in context, it seems that agriculture is getting a bum rap. Most of our serious pollution in the Northeast comes from non-agricultural sources. Overloaded municipal sewage systems dump vast volumes of partially-treated or untreated sewage into our waterways. Industrial wastes also enter them in enormous quantities. Farmers, even those who may be careless about pollution, contribute minute amounts compared to their municipal and industrial neighbors.

Even so, farmers will continue to take flak. Farmland is visible, so lots of people **see** our mistakes. And people these days are more disposed to holler about what they see.

It's easy to gripe, but let's take a positive view. Farmers do contribute some to pollution, and much of it comes out of their pocketbook. Fertile soil lost into a stream is money down the drain, as is excess nitrogen leaching into the groundwater. Likewise, reasonable care in handling manure is just part of being a good neighbor, and can pay off in better utilization of this homegrown fertility.

Let's look at some things you can do to reduce your pollution potential,

AGWAY FARM ENTERPRISE SERVICE

AGWAY

Tests prove Agway LPS has slowest ammonia release of leading liquid supplements fed in the Northeast

Slow ammonia release from feeds containing non-protein nitrogen assures you of optimum nutrient use by your cattle. Ammonia is used by the bacteria in the cow's rumen to make high-quality protein. The slower the release, the more time the bacteria have to convert ammonia into protein. And slow ammonia release is just what you get from Agway Liquid Protein Supplement.

Tests were conducted on several liquid supplements at the Agway Technical Center in Ithaca, N. Y. Standard laboratory procedures, using fresh rumen juice from a live fistulated animal, were used in all comparisons. As can be seen in the table, Agway LPS had the slowest rate of release when "fed"; at one hour later, and at two hours later. Note that the Agway LPS had the greatest advantage during the key first hour.

Rate of ammonia release of liquid supplements as a percent of total ammonia released during a three-hour period.

	When "Fed"	1 Hour Later	2 Hours Later
Agway LPS	15.2%	48.7%	80.2%
Liquid Supplement "A"	29.3	55.8	85.5
Liquid Supplement "B"	37.3	70.2	93.0
Liquid Supplement "C"	45.3	79.8	95.5

Better health

Along with protein, LPS provides vitamins A, D, and E as well as critical minerals such as phosphorus which are essential to a well-balanced feeding program. It is especially useful in balancing protein needs when high-energy, low-protein forages such as corn silage are fed.

LPS—year-round cost reducing balancer

Agway LPS reduces your cash outlay for feed because this 33% protein supplement provides that 33% protein at the lowest possible cost. You buy only the protein you cannot grow on your own farm.

Easy to use

Agway LPS fits into any program of dairy feeding and management you use. You can feed it free-choice, mixed with grain, or top-dress it on forage or grain to improve palatability.

No waste

Studies have shown that when LPS is fed free-choice, cows regulate consumption according to the protein level in their dry ration. Cows tend to increase consumption of LPS when protein intake is below their needs. As protein intake from forage and grain increases, consumption of LPS declines.

To beat the high cost of protein today, find out more about Agway LPS and what it can do for your herd. Just call your local Agway and ask for a Farm Enterprise Salesman.

while you boost your profits.

First, let's take soil erosion, the pirate that runs off with your topsoil and the soil fertility you've built up. Many practices help conserve soil, some simple, some more complex.

Soil conservation certainly isn't a new idea, but its need keeps rising. Larger fields mean more longer runs for runoff water, which carries more soil as it picks up momentum. Frequent hedgerows once held back such washing, but these are being cleared. More row crops on hills (particularly corn silage) means more ground left bare over winter. Even better weed control, a must for crop profits, has its negative effect in eliminating the fine cover of dead weeds once decorating our over-wintering fields.

Conservationists and agronomists agree that the situation is getting worse, and is downright acute in some hill areas. Fred Swader, Cornell soil scientist, passes on the following suggestions to help control erosion better while farming bigger.

Reduced tillage helps some, with "no-till" corn one way to cut erosion to near zero. Rye, wheat and other winter cover crops also help, wherever they can be planted early enough to permit sufficient fall growth to protect the soil.

Perhaps the simplest idea, and the oldest, is the recommendation to plow, plant, cultivate and otherwise work fields across the slope rather than up and down. It's far from a new suggestion to plow that way but we've seen many "up and down" plowings in recent years. These may be O.K. some years, but then a cloudburst comes and down goes the soil to the bottom of the slope. We saw this happen dramatically in several areas of eastern New York following heavy storms last June, with large fields gullied almost beyond use in a few hours of heavy rain.

Strip Cropping

Strip cropping also makes sense, particularly on long slopes. Alternate strips of forage and row crops across the slope slow down the rush of water, disperse the flow and reduce its capacity to carry soil.

Diversion and interceptor ditches, sod waterways and other structures all have their place in an overall farm program.

Haphazard use of one or more of the above practices can help, but you'll gain far more from your effort if you fit these into an overall soil management plan. You can gain help and advice in developing a conservation plan suited to your farm by contacting the folks at your soil and water conservation district. Their representatives, or your district conservationist, can help you develop a long-range plan to fit your fields and farm. There is no charge for their services, and there are offices in each county.

Manure

Manure handling is another "hot" political topic. And this too gets worse as we increase the size of our herds and flocks.

Here again, some common-sense suggestions can help you get along with your neighbors and keep them peaceable.

Once again, planning ahead is the secret. A good long-term manure management plan can guide your day-to-day program. Your county extension agent can help you in setting this up.

Manure spread on the land correctly rarely causes pollution. In fact, it's a darn good way to recycle nutrients, a concept that has the approval of even the most rabid ecologists.

The biggest public problem with manure is its odor, not soil pollution. Those of us involved with farming get used to it, and can tolerate a wide variety of smells. But non-farmers don't smell manure often, and it truly bothers many when they do. And even if your neighbor's a farmer, he won't appreciate your spreading manure near his house or picnic grounds, particularly just before he stages an outdoor barbecue!

Not all manure smells badly. Oxygen reduces odors, but manure stored in pits, piles or lagoons where oxygen is excluded can stink to high heaven when it is spread. If you're planning a new system, be sure to consider one of the several systems that build in manure aeration.

As we noted earlier, manure isn't particularly pretty. Here again, we're more concerned with public relations than pollution. There's nothing really wrong with spreading manure on clean white snow next to well-traveled highways, but don't expect the passersby to vote your way on pollution controls for agriculture!

And don't let your manure get into streams. A few dead trout may not have much commercial value, but they can cause you thousands of dollars worth of headaches.

Stacking manure in winter can present problems, if runoff and melt water carries the manure into streams. Dr. Paul Zwerman, Cornell professor of soil conservation, suggests planning your winter piling area now. One good place, he notes, is along the edge of a field just above a wooded area. The forest floor has tremendous capacity to absorb nutrients, and runoff manure sure helps trees grow. Most of the manure will stay in the pile, of course, and can be spread come spring.

State extension services have developed information on manure management. Cornell agricultural engineers have put out a first-rate piece, entitled "Guidelines for Dairy Manure Management, Agricultural Engineering Extension Bulletin 400." This is available from New York county extension offices or directly from: Agricultural Engineering Extension, 325 Riley-Robb Hall, Cornell University, Ithaca, New York 14850, Single copies are free.

Fertilizers Too!

Fertilizer practices are also under the gun, with phosphorus and nitrogen the prime targets. Phosphorus is relatively insoluble and is carried into waterways along with soil in the erosion process. Good erosion control will keep your phosphorus in place.

Nitrogen presents a different problem since it dissolves quickly in soil water. Much of the nitrogen that is not picked up by crop plants will seep down into the groundwater or

(Continued on page 41)

AGWAY FARM ENTERPRISE SERVICE

AGWAY

How Ratio:Right feeds keep you on top of the feed cost squeeze



Every time you change forages—begin feeding haylage, go to a new batch of hay or start another silo, for instance—you're changing the amount of protein and energy that's going into your cows. And nobody knows it better than you do.

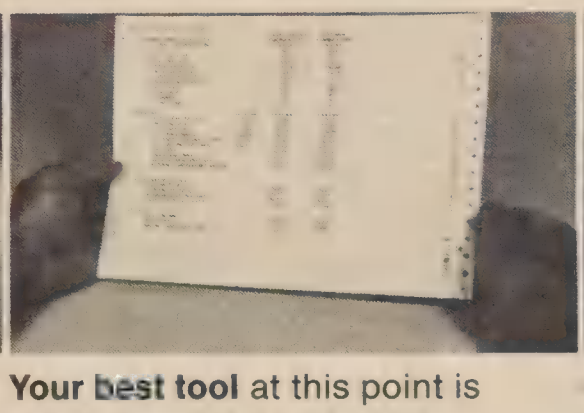
So what steps can you take to keep production up where you want it?



First—have your forage tested. Knowing the true value of your forage, in terms of protein and energy, is the only way you can eliminate assumptions and know exactly how to supplement to get top production over feed costs.

You just can't make milk, profitably, on assumptions. So get a forage test.

What do you do next?



Your best tool at this point is the Agway TDR (Total Dairy Ration) Profile program. It gives you, and the Agway Dairy Enterprise Salesman, all the information needed to select the proper concentrate to balance out your homegrown forages and to maintain top production at least cost. If you haven't taken advantage of the Agway TDR Profile, you're probably not getting all the value you should out of your crop program.



Once you know the facts—from a forage test and TDR Profile—it's easy to select the Agway Ratio:Right feed that gives you the exact amounts of energy and protein needed to balance the energy and protein in your forages. You don't have to overfeed protein to get enough energy—or overfeed energy to get enough protein. You buy only what you need and can't raise yourself.

Call Agway soon and ask for a Farm Enterprise Salesman. He can help you take the steps you need to take to keep on top of the feed cost squeeze.



Doc Mettler comments on:

Coliform mastitis

A coon hound sounding track can be heard for miles if conditions are right this time of year. If I am outside on a cool, dark November evening, I like to stop and listen a minute before I go into the house. When I hear a particularly good-voiced dog, I start to argue with myself that I should find another hound to replace my last Red Bone who died several years ago. Then I think of all the other things I should be doing and I know I just don't have time to coon-hunt anymore.

I don't think I **ever** really did have the time to follow coon dogs, but stole it when I should have been working on the books, or sleeping. More than once that short hunt for only one coon turned out to be a nearly all-night affair following some old ridge-runner. The big question after the end of a run, whether the coon was treed and shot, or holed up in the rocks and lost, was, "Now where are we?"

You might have asked the same question if you read my October article in AMERICAN AGRICULTURIST, when I mentioned that perhaps we should devote a whole article to coliform mastitis. Before I start, however, I should clarify the situation. Though the mastitis research people, like the coon hunter, have followed one problem — ordinary mastitis caused by strep ag, non-ag strep, and staph — to a reasonable conclusion, they are now completely puzzled as to where they are in regard to coliform mastitis.

Coliforms designate a group of organisms which are gram-negative rods and include E. Coli, Aerobacter, Klebsiella and Pseudomonas. These organisms are common to manure and to many places in the environment . . . including, we are told, even the bark of normal trees in the forest. They can cause severe mastitis if they gain entrance to the udder.

Start a discussion on coliform mastitis and you will have as many views as there are people involved in the discussion. Perhaps like the blind man describing an elephant, we are all correct, since few of us see the picture from exactly the same angle. What happens in California is influenced by different factors than what happens in Vermont, and what is true at your neighbor's may be different than at your own farm. For this reason, I will try to confine my discussion to general information.

We see coliform mastitis in all stages of a cow's life and lactation, from before freshening in first-calf heifers to old cows near or after drying off. However, the acute fatal cases that cause the most concern are those in high-producing young cows with no previous history of mastitis, and at the peak of their production during that particular lactation.

Though the organisms are found everywhere in the cow's normal environment, the concentration varies. You would not find as many organisms in the middle of a clean, sunlit pasture or in a dry stall well-bedded with straw, as you would in a muddy barnyard (or "dry" lot). The fact that coliform mastitis is primarily a disease of confined cattle and seldom seen in pastured animals (except from teat injuries) is proof of this concentration statement.

The signs of coliform mastitis in the acute form are a red, swollen udder and a yellow, watery secretion instead of milk. A few "slugs" may have been noted during the preceding milking, but the udder seemed normal. The temperature may be high (106 degrees or above) in the early stage, but soon drops to subnormal (98 to 100 degrees). An exception to this is Pseudomonas, with which I have seen cows run temperatures of over 106 degrees for a week.

Until recently, I always felt that if a cow became acutely ill with coliform mastitis two hours after milking, she had picked up the bug at the most recent milking. According to some investigations by a research veterinarian, however, this is not true.

The bacteria themselves do not make the cow sick, but rather their toxins . . . that is, their by-products. This veterinarian has found that he can inoculate a cow with coliform bacteria right after the evening milking, and not have any more signs of sickness than a few slugs the following morning, though millions of coliform are already growing in her udder. However, two hours after the morning milking she will start to shiver and show signs of acute illness. As I think back over clinical cases I have seen, I believe he is on the right track.

I also feel that, in many cases, if these cows are treated immediately with letdown hormone, antibiotics systemically, and milked out, some will be saved. One milking later, though, and the recovery rate is almost zero.

The typical case will not respond to treatment, will soon have a subnormal temperature, become sicker by the hour, may go down and die . . . or will at least lose the affected quarter and go nearly dry in the

AGWAY FARM ENTERPRISE SERVICE AGWAY

The Agway Total Mixed Ration (TMR) —*the same balance in every bite*

Cows vary greatly in their individual preferences for one forage over another. In one recent trial, for instance, cows were offered various forages in a split manger comparison test. Forages offered were (1) hay, (H) vs. hay crop silage (HCS), (2) hay vs. corn silage (CS), and (3) corn silage vs. hay crop silage. Each forage was offered free-choice. The ranges of individual consumption of the various forages are tabled below.

(1) H:HCS	H:5%–62%	HCS: 95%–38%
(2) H:CS	H:22%–60%	CS: 78%–40%
(3) CS:HCS	CS:15%–82%	HCS: 85%–18%

It is evident that the old rule of thumb, "Hay in the morning, silage in the afternoon," no longer applies if we're feeding for maximum income over feed costs.

The TMR concept

More and more dairymen in the Northeast and other areas are switching to the Total Mixed Ration (TMR) concept of feeding dairy cattle. And for one good reason: TMR is the best method yet devised for feeding a ration that's balanced for nutrient content. Its three principal advantages are: 1. A totally mixed ration eliminates cows' preferences for one feedstuff over another. 2. Each bite is a balanced bite that can be defined in exact terms of grain-to-forage ratio, crude protein, energy, crude fiber and mineral content. 3. Free-choice feeding of TMR provides the opportunity for cows with strong appetites (usually high producers) to eat whenever and however much they need.

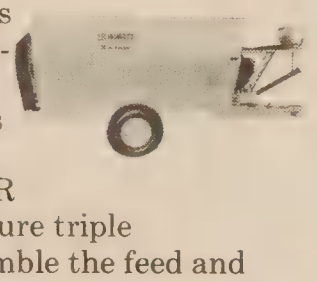
Facility requirements

Good as it is, TMR feeding can be no better than the equipment used to mix the ration. Accurate measuring and mixing is a must. If only partial mixing occurs, cows may develop the bad habit of sorting out the ingredients they prefer, and the advantages inherent in the TMR concept are lost.

To assure the accuracy and mixing ability you need, Agway offers both mobile and stationary equipment with a wide variety of choices. Both are adaptable to your present barn setup, free-stall or stanchion.

The Schwartz mixer wagon

The flexible way to accurately proportion, mix, transport and distribute nutrients in any prescribed amount and formulation. Makes it easy to feed the right rations to lactating cows, dry cows, heifer replacements or dairy steers, no matter where they're located on your farm.



Three models deliver approximately 3 tons, 5 tons or 6 tons of a 35-pound/cubic foot TMR ration. All feature triple augers that tumble the feed and turn it end for end for thorough mixing. Optional hydraulic doors and elevator control make it easy to fill bunk or feeder. Optional electric scale assures precise amounts of each ingredient. Other options available.

These machines are the best Agway has seen and should last a lifetime if given reasonable care. If you're considering TMR, be sure to have a good look at them.

The Farm-Eze System

Silage, grain and supplements—exactly proportioned, thoroughly mixed and delivered to the bunk feeder—all automatically.



Once you've decided on the TMR that will give you maximum income over feed costs, adjust your Farm-Eze to deliver the ingredients. At the touch of a button, here's what happens:

1. Forage is accurately measured by volume as it moves under a forage meter. 2. Proper amounts of corn (processed through a roller mill) and supplement(s) are proportioned and added. 3. Ration is carried to a tumbler for thorough, continuous mixing. 4. The complete ration is delivered to a bunk feeder. And it all happens automatically!

If your bunk feeder happens to be a new Farm-Eze belt conveyor type, you've just fed as many as 120 cows in 8 minutes flat!

To find out what TMR and/or automated mixing-feeding can mean to you and your family—and your way of life—just call your local Agway.

others. I do wonder if perhaps when a case of acute mastitis caused by coliform does get better, we don't realize it was coliform, but chalk it up as one caused by strep or some other more easily-cured organism.

To prove or disprove that you have coliform mastitis in your herd, your veterinarian can leave you sterile sample vials in which you can collect a sample from a quarter that "blew," and then either take the sample directly to the lab or keep it frozen until you can take it. The more of this that is done, the more we will learn about just which organisms are causing the really sick cows.

Wide Open

Statements are often made that we can get the leukocyte count so low in a herd that it is wide open for coliform mastitis, or that when we rid a herd of strep and staph it becomes more open to coliform. Both statements have officially "proven true" and "known to be false." My personal opinion is that other factors are needed to cause the high incidence of coliform mastitis.

What can you as a dairyman do to prevent coliform mastitis? No one thing is the answer for everyone, and in some cases there does not seem to be a practical answer, but here are a few ideas:

1. If you bed with sawdust, use only kiln-dried; if this is not available, let the sawdust "heat" before it is put in the stalls.

2. Provide enough freestalls in freestall barns so no cow has to lie in an alleyway. Breaking calves to freestalls at six to eight weeks of age is an easy way to make sure they use them when they become cows.

3. Change bedding in freestalls several times a year. Prevent wet holes in freestalls.

4. Fence off mudholes and, if necessary, pave barnyards. The so-called "dry lots" as used in California are hotbeds of coliform and should never be copied here in the Northeast.

5. Never milk a cow unless her udder and teats are dry; coliforms multiply rapidly on wet skin. If you wash a cow with a hose or prep stall that wets more than just the teats, it is nearly impossible to prevent water from running down from the udder and flanks into the teat cups. Simply wiping teats with a damp paper towel, washing teats and drying with a single service paper towel or, radical as it may seem, simply wiping teats with a dry, soft paper towel without using any water at all are all better than using sprays that wet the whole udder.

Repeat

I will repeat the last alternative: If cows are kept in clean stalls, you can produce cleaner milk and be in less danger of coliform mastitis simply by wiping off loose dirt with a soft, dry paper towel than by any other way. Stimulation can be accomplished by taking streams of milk by hand into a strip cup or onto the platform in a milking parlor.

6. Keep two sets of liners and alternate them weekly. Use only liners designed for your particular make and model of machine, and follow manufacturers' recommendations about how long to use liners. Most manufacturers recommend washing liners in lye or rubber-cleaner at the end of a week, then rinsing and storing in a dry dark place for a week before putting back in use.

7. Maintain other rubber parts as recommended by your manufacturer.

8. Have your milking machine checked on a routine preventive maintenance program as outlined by your dealer.

9. Don't expect a 12-year-old milking machine installation that was designed to milk four cows at a time giving 20 pounds to a milking, to milk six 40-pound cows at a time and do a proper job.

Gadgets

10. Don't expect the addition of "gadgets," or even a new vacuum pump, to take the place of worn-out pulsators, ineffectual vacuum controllers, or a too-small vacuum line.

11. Although most teat dips are said to be ineffectual against coliform mastitis, they must do **some** good, even if it is only to remove the last drop of milk from the cow's teat. Teat dips that chap teats, or products not proven as dips (or that are meant for some other purpose, such as udder washes), do more harm than good.

12. Since cows naturally lie down immediately after milking at a time when they are most susceptible to mastitis, make sure that conventional-stall beds are clean and bedded (even if it means kicking a little bedding back under each cow as you remove the machine or dip the teats). With parlor milking, make sure cows go directly to the feed bunk instead of to the freestalls to lie down. That extra few minutes on their feet gives teat ends a chance to close and seal out mastitis organisms.

13. Avoid the stress of "pushing" a cow too hard. Better to have a live 90-pounder finish with 19,000 pounds than a dead 100-pounder that "was on her way to 22,000."

14. Learn, or review if you already know, all you can about the anatomy and physiology of milk production. Then apply this by milking each cow with exactly the same routine every milking. As one good client put it, "There is nothing to milking; get her ready, put it on and when she is done, take it off."

15. Avoid bad habits such as pinching the short milk tube to see if a cow is still milking, getting milk on your hands, or stripping on the floor of a conventional barn.

Even if you follow all my suggestions and do the best job you know how, if you milk enough cows a long-enough time you are going to have an occasional coliform infection. Part of the reason for this is that most mastitis is spread from cow to cow, whereas coliforms are everywhere the cow is. However, the more you learn about the disease and about proper milking, the better chance you will have to avoid it.

I do hope that somehow a simple prevention of all types of mastitis is found soon. If that ever happens, perhaps I would then have time to break in a new coon hound. That would be fun!

AGWAY FARM ENTERPRISE SERVICE

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TIME IS SHORT

Start your lime-up now

If you haven't limed in the past two years, odds are high that your soil is becoming too acid for maximum production.

If so, get your lime down now--before winter sets in. The longer you wait, the longer it will be before the limestone becomes fully effective and your fields are up to full profit potential.

There's no better time to put down your lime than in the fall, especially on ground that will be planted to corn or alfalfa next spring.

Adequate liming puts nature on your side. It helps your fertilizer investment work even harder. It's a guard against crop failure and a boost for effective weed control. And, most importantly in this area of dairy operations, lime enables your alfalfa to produce more protein.

Take the time to soil test now. Your Agway Enterprise Salesman is equipped with a quick test kit to give you a rough idea of the pH situation in your fields.

Ask your farm credit man about intermediate-term credit. Corrective liming can be considered a capital improvement for which the cost can be spread over the three to four years it takes for the limestone to become fully effective.

Liming is one of the least expensive practices that can return so much profit. Give it some serious thought right now, then call Agway.

Field store your P&K now, before winter sets in

Applying phosphorus and potash now pays off in more ways than one. It frees valuable time and equipment for the spring rush. And, most importantly, assures you of adequate supply in what is likely to be another tight-supply year.

Apply your fertilizer and lime the easy way, with Agway's Certified Spreader Service. Schedule now while spreaders can get into your fields.

New Agway

Energy King Corn Hybrids

for '74 help you grow more milk-making power

Order now for spring delivery

A Truly outstanding performer: Agway 590X Tremendous yield potential of up to 37 tons of silage and 235 bushels of grain per acre. Excellent standability. Maturity range: 96 to 106 days (silage/grain).

A "special cross" hybrid: Agway 393S Proving itself from Maine to central Pennsylvania for superior standability, excellent disease resistance and grain yields. Maturity range: 90 to 100 days (silage/grain).

A new full-season hybrid: Agway 834X Excellent production potential. A medium-sized ear on every plant is relatively low placed for a late hybrid. Highly recommended. Maturity range: 119 to 129 days (silage/grain).

An excellent high-population hybird: Agway 595S Exceptional root development plus a high-quality, rugged stalk has resulted in excellent standability. Widely adaptable. Maturity range: 94-104 days (silage/grain).

Cornell 110 A new star for short-season areas. Vigorous early growth with above-average tolerance to cold soils. Good yields for short-season areas. Maturity range: 72 to 82 days (silage/grain).

Agway 725X Extremely uniform with medium-low ears. In one-acre trials on six farms last year, yields averaged 133 bushels with only 1.7% lodging. Maturity range: 110 to 120 days (silage/grain).

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AA-11

Northeast FARM EXPERIENCE

BACK TO THE STACK

Walbridge Farm, owned by George W. Perkins, Jr., and located near Millbrook, in Dutchess County, New York, hasn't seen a haystack in 30 years or so. Leastwise not until last year when George decided to try the new one-man haying system on his 350-cow purebred Angus operation. He uses the Hesston StakHand 30, and after feeding from the system for a year reports he is generally pleased with it. "I went from a five-man haying operation to a one-man operation without loss of hay quality," says George.

This system makes rectangular stacks shaped not unlike huge loaves of bread and weighing upwards of three tons apiece . . . each stack roughly equivalent to 150 "kicker bales." George just sets them in a place that'll be convenient to get to in the winter and forgets 'em until time to feed 'em. Last year he had about 200 stacks dotting the fields near the barns.

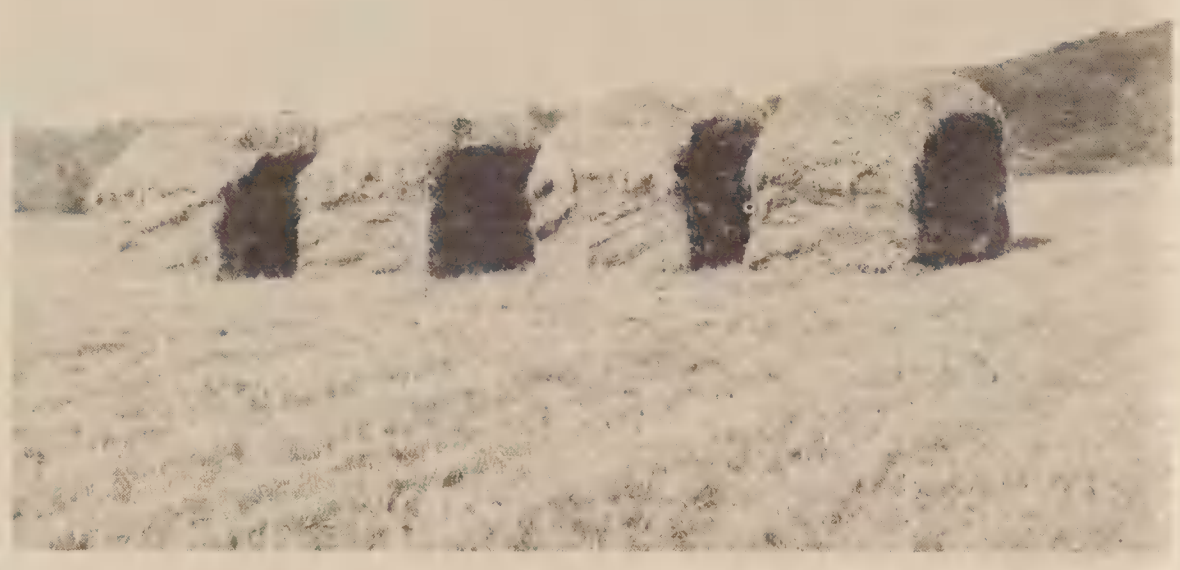
We asked how the stacks hold up to weather. "You have to be careful right after you've made a stack because it's still fluffed up and a good wind will blow some off," George explains. "But they sweat and settle before long and then are very unlikely to blow over."

As for spoilage from weather, he told us that the top four inches or so will be bad, but there is no spoilage on the sides and the inside is amazingly green. The stacks should be made with hay 10 percent wetter than for conventional bales. A high, well-drained site should be chosen for them.

Feeding

George feeds them by carrying the stack to the feed area with the StakMover, and setting up feeder panels around it. The panels are hinged and move some as the cattle eat farther into the stack. "There is still some wastage," George admits. But he thinks if he were feeding stacks on a concrete slab instead of the ground, less would be wasted.

Another machine, which George owns but hasn't used much, picks up the stacks, slices strips off the end



Four new stacks of first-cutting sit in a field near the barn. George warns that covering stacks with black plastic is a mistake; it increases spoilage.



This team (tractor, StakHand and George Perkins) can put up a lot of hay in a day. Last year George made over 200 stacks that were mostly birdsfoot, brome and timothy.

(like a bologna slicer), and feeds it out a cross conveyor into a bunk or onto the ground.

Dairy

Since George has beef animals he uses more grass and less alfalfa and other legumes. He finds that quality control is not much of a problem. However, few have tried this method of hay-handling in a dairy situation. Factors of feedability and retention of quality must be explored, it appears, before many dairymen are prepared to invest the $11,000 for the equipment.

In addition, it may be that most dairy operations aren't set up with enough room for efficient stack-feeding. Whatever the outcome, it looks as if stack haying is the answer to some beef farmers' prayers, and something for the dairy farmer to keep an eye on. — *E.P.A.*



This partially-eaten stack George is pointing to demonstrates the tendency of cattle to eat from the bottom up. These feeder panels are movable to accommodate the smaller and smaller stack.

GROWS VEALERS

People driving around the village of Colrain, Massachusetts lately may have seen a new barn go up on Wilson Hill. It's for the veal operation being developed by Don Giard.

Don, a long-time rural dweller who did masonry work, says, "You can't pay taxes on a place like this and not do something with it. I got interested in veal about a year and a half ago and decided to put up a new building." So he wound up his career as a mason by laying cement blocks for the building (42×72 feet) that houses 104 veal calves in a controlled environment.

Ventilation consists of two 20-inch exhaust fans and walltop slot inlets. Baseboard heat is provided by a hot water furnace with a capacity of 120,000 BTU. Both heating and ventilation are of Don's design. The cores of the cement block walls were blown full of insulation, and there are only two windows in the whole building.

The business is strictly a family affair, with additional labor provided by Don's wife, Ruth, and the children. The calves are obtained through a buyer for a nickel a pound more than the going market price, fed for 14 weeks, and then marketed at 325 pounds. They are raised in wooden-slat pens that sit on a concrete floor. "The market I'm in won't take calves raised on metal," reports Don, "because they lick it and it colors the meat."

Speaking of markets, the Giards couldn't have picked a better time to get into the business. Their first batch of vealers were marketed in the New York-New Jersey veal market in August for 80 cents a pound on the hoof! They will grow three batches a year.

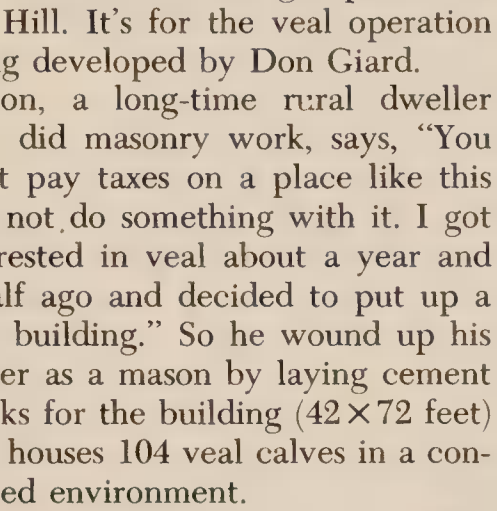
Mortality Problem

Those close to the veal business generally agree that calf mortality, whether due to infectious disease or cold weather, is the major stumbling block to growers and has had disastrous consequences for some in the past.

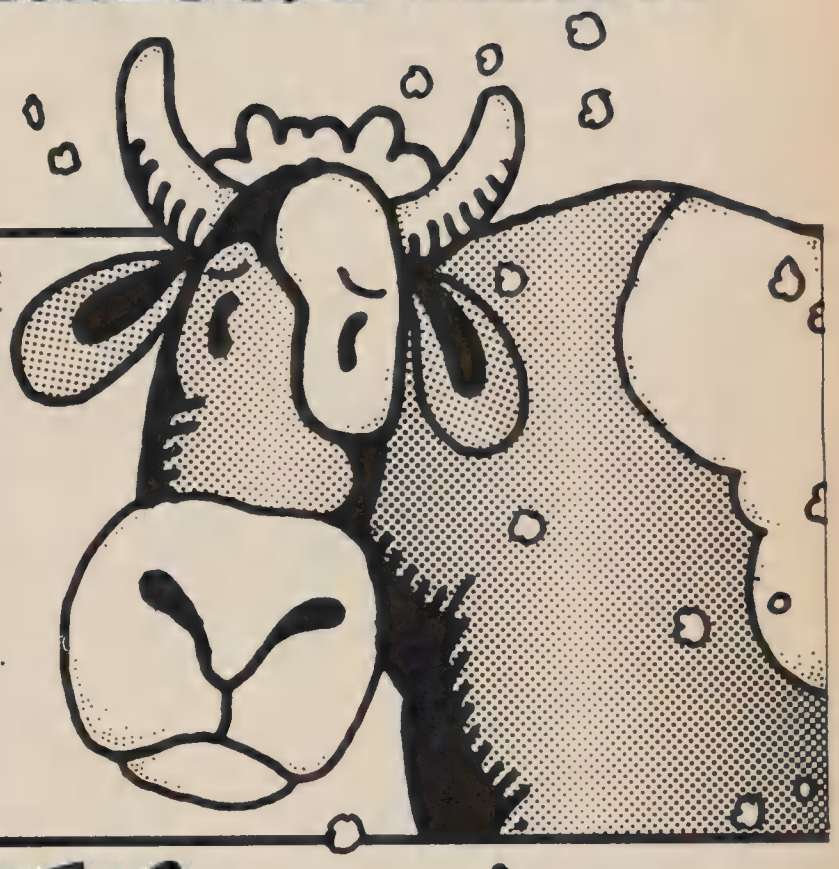
Don is well aware of this danger and has some thoughts on the matter. "You've got to get into the business right," he contends. "A lot of guys try to do two jobs, or don't have the right facilities, and sooner or later, calf mortality gets the best of them." Mortality was seven out of 104 on his first batch marketed. The calves are marketed by Provimi, but Don emphasizes that he is not on a contract, and can market elsewhere if he wishes.

The Giards feed their calves Provimi feed, a skim-based milk replacer which comes in three forms, depending on the age of the calf. A large portable mixer tub with agitator aids feeding, which is done from some 20 rubber pails. The tub can be rolled down the barn aisles to save carrying full pails. A flush manure system with high-pressure water lines and a hot water machine helps keep things clean.

Like a growing number of folks who prefer being their own boss, the Giards have launched a veal calf venture which, if future batches do as well as their first, should prove profitable. "It's expensive to get into," adds Don, "but not as expensive as the dairy business, and I don't need a tractor." — *E.P.A.*



Winter Stress. We can do without that.

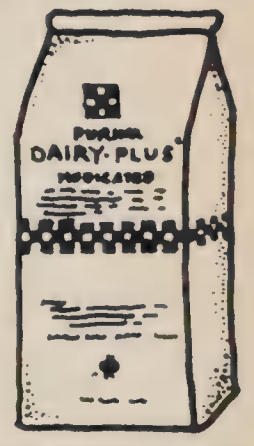


During the fall and winter months, your cows probably are not getting all the nutrients they need. They're also getting more problems than they can handle by themselves. The change in weather brings a lot of changes to your cows. They won't be out to summer pasture anymore. They'll be confined in drylot off poor, dry or sparse pasture, or in less than ideal wintering conditions . . . not to mention the cold.

It all comes as something of a shock to your cow. And that shock brings a very measurable stress, susceptibility to diseases, reduced milk production, and breeding problems.

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This is Purina Dairy-Plus Etts®. It gives your dairy cows the same protection against scours and bloat, and the same vitamins as Dairy-Plus but in an individual ration form that is easily added to each animal's feed once daily.

To make sure each of your dairy cows gets just what she needs, we've enclosed a convenient measuring cup in all specially marked 50-lb. bags of Dairy-Plus Etts.

Dairy-Plus. Dairy-Plus Etts. They're basically two different ways of giving your cows the same effective protection against winter stress. Drop in to your local Purina Dealer and pick the one that's best for you.

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John Deere announces 4 new feature-loaded tractors

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Moline, Illinois 61265



Blank Page Digitally Inserted



Cattleman starts the stomach tube into the nostril.

Stomach tube for calves

THE most indispensable "calf-doctoring" tool on our ranch is a simple plastic tube about five feet long. This tube goes down a calf's nostril and into his stomach. With it we can give a sick calf extra fluids, medication, or electrolytes, a debilitated calf milk, concentrated protein or other forms of nutrition, or a newborn calf colostrum.

It's the easiest way to give a scouring calf medication and fluids to combat dehydration. The best treatment we found for scours is to take the calf off the cow, feed him electrolytes and medication every six hours for 24 hours, then milk out the cow and put them back together. Calves doctored this way recover much faster than if you leave them on the cow; milk keeps irritating that digestive tract.

We feed a quart of warm water (body temperature) with the electrolytes and medicine . . . antibiotics, gut-soothers etc., every six hours via stomach tube. This is the quickest and easiest way to get it into the calf, and also the safest. Trying to "drench" or "bottle feed" a stubborn calf can be very frustrating and time-consuming, and runs the risk of choking the calf. The stomach tube solves these problems.

The tube should be about 5/16-inch external diameter (3/16 internal), large enough for fluid to run down easily, yet small enough so it won't irritate the calf's nose and throat. One end should be smoothed (use your pocket knife or a grinder, or heat). A bit of vaseline on the end makes it go down easier without "scraping." Attach an ordinary kitchen funnel, or a plastic jug with the bottom cut out, to a small section of flexible gas line (5/16 inside diameter) which can then be fitted over the tube when you are ready to pour the liquid.

The calf can be standing or lying. When you get the tube in the nostril and started down, try to feel when it gets to the back of the mouth (about six inches of tubing); you must let him swallow it. If you don't give him a chance to swallow it, the tube will go into his windpipe instead of into the esophagus and stomach.

You can usually tell when the calf swallows the tube, and as you feel him swallowing, ease the tube on down. You have to provide the momentum as he swallows, to move the tube along. Put the tube down the nostril rather than the mouth, because it is actually easier, and you don't gag the calf . . . and he can't chew the tube in two.

Indication

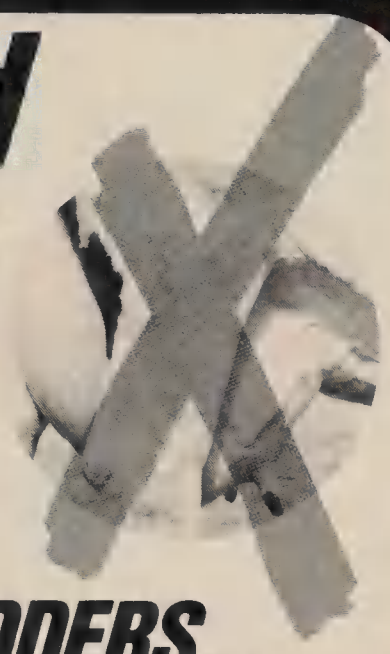
As you push the tube on down you'll get other indications to tell you whether or not it is in the proper passage. If the calf coughs, it is in his windpipe and you'll have to start over. If it goes down easily and you smell a foul odor at your end, it's in his stomach.

Sometimes some of the stomach fluid will start back up the tube and then you'll know **for sure** it's in the stomach! Usually when the tube goes down easily and doesn't stop, it is in the stomach; if it goes only part-way down it may be in the windpipe.

If you are still in doubt as to whether it is in the proper place, blow on the tube. If you hear burbling, it is in the stomach. If your blowing makes the calf cough, it's in the windpipe. When the tube is in the proper place, attach the funnel and pour the liquid down. When you are through, detach the funnel, put your thumb tightly over the end of the tube and pull it out quickly but gently. You can blow the last bit of liquid down first if you wish, so none will be dripped as the tube comes out.

Most scour cases are 100 percent

breed away from DEEP, SHARP UDDERS...



They lengthen milking time . . . more milk in rear udder and less in fore udder than normal . . . front teats too far apart . . . hard to put teat cups on . . . harder to keep them there . . . long teats easily stepped on and injured . . . often associated with hard milking. A condition to be avoided. And while no one can guarantee results of any one mating, the three bulls pictured here will usually help you "breed away" from deep, sharp udders.

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ST. CROIXCO GALE "VG-88"
Gold Medal Sire (5/69) aAa: 5-6 (5-5-5-5-6-6)

USDA: (9/73)	26 dtrs. av.	17,136M	3.59%	616F
		16,299M		624F
	Pred. Diffs.	+493M		+1F
	Repeat. 49%	Pred. Dollar	+$19	

USE...



DAN-VER CAROL SENATOR "GP-83"
Gold Medal Sire (1/73) aAa: 5-6 (6-5-5-5-6-6)

USDA: (9/73)	43 dtrs. av.	18,965M	3.49%	661F
	Herd av.	17,691M		630F
	Pred. Diffs.	+732M		+19F
	Repeat. 46%	Pred. Dollar	+$43	

USE...



HAYSSEN CRAFTSMAN "VG-86"
Type Qualified Sire (5/73) aAa: 5-6 (5-5-5-5-6-5)

USDA: (9/73)	12 dtrs. av.	18,693M	3.71%	694F
		15,107M		575F
	Pred. Diffs.	+1,057M		+36F
	Repeat. 29%	Pred. Dollar	+$70	

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"I guess I should have saved more during the last recession so I'd have more money during inflation."

better after four or five dosings and can go back with the milked-out dam. If the calf is still a bit weak or runny, we give him several additional dosings after he is back with mama. We've found that discovering sick ones early is a key strategy in the battle, that using electrolytes and extra fluids has been our most successful means of combating scours, and that the stomach tube is our most efficient tool for doing it. — *Heather Thomas, Salmon, Idaho.*

Editor's Note: Dr. Bruce Haynes, extension veterinarian in New York State, says that an **experienced** cattleman can use a stomach tube with greater safety to the calf than by drenching. However, a really sick calf may not cough even if the tube is in his **lungs** . . . so recognize the risk involved.



Foam — Advantages to farmers, packers and nurserymen of spray-in-place rigid polyurethane foam are described in a new, eight-page brochure showing how existing buildings can be converted into low-cost controlled environment (CE) facilities with the use of Isofoam, by Witco. Benefits cited for urethane foam include special insulation advantages, high resistance to water and water vapor, ease of application, and dimensional stability.

For a copy of Bulletin IP-37, write Witco Chemical Corporation, Isocyanate Products Division, 900 Wilmington Road, New Castle, Delaware 19720.

❖❖❖

Storage — Did you stand too long in grain lines waiting to unload? Have to store grain in a rat-infested bin? These are serious problems for the farmer caught without proper on-farm storage. To help growers meet their extra-storage requirements, the American Plywood Association offers free plans for on-farm structures that can be built quickly and economically with softwood plywood.

Included are grain bins in 1,200-bushel (12×16 feet) and 5,500-bushel (24×24 feet) sizes, sturdy, durable and impervious to corrosion from today's acid preservatives.

There are also two brochures, one with plans for a self-supporting, demountable, portable grain storage wall; the other with specifications for deep vertical-walled granular storage bins up to 60 feet deep.

For a free copy of the two grain bin plans and the two brochures, write to the American Plywood Association, 119 A Street, Tacoma, Washington 98401. Ask for them by the following titles and form numbers: "Exterior Plywood for Farm Construction," M390; "Plywood for Granular Material Storage," X115; "1200 Bushel Portable Grain Bin," M200; and "5500 Bushel Grain Bin," T130.

Food For The Spirit



by Robert L. Clingan

A shaken and bewildered young man left a doctor's office. He had just learned he had an eye disease that science in his day could not cure. The prognosis had been, "total blindness."

He was a student of the ministry, engaged and planning to marry soon. Not only did he have a secret to share with his fiancee, but he felt honor-bound to offer to break the engagement now that a troubled future had become certain.

As he explained the situation to her, he offered her the chance to terminate the engagement with these words, "You would not want to be the wife of a blind man." Secretly he had hoped her love for him would be so strong that she would accept even his coming blindness. To his disappointment, she agreed with him: "You are right. I would never want to be the wife of a blind man."

He returned to his study even more shaken than when he had left the doctor's office. Human love had somehow let him down. The girl of his dreams did not really love him as much as he loved her.

As he sat at his desk in utter dejection, contemplating how this human love had failed him, he thought of another kind of love on which he could depend . . . a divine love, that would never let him down or let him go. His thoughts about that never-failing love took poetic form. His poem, which was later set to music and became a hymn, was, "O Love That Will Not Let Me Go," and the writer was George Mathewson. Here are two stanzas from that poem:

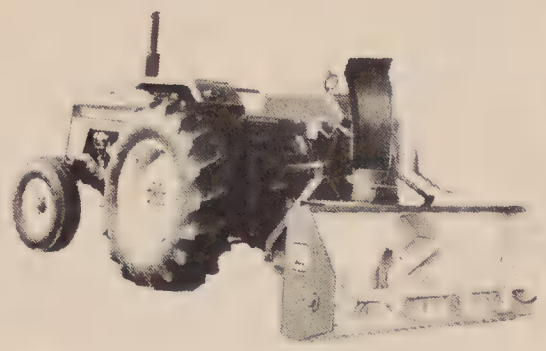
O Love that will not let me go,
I rest my weary soul in Thee.
I give Thee back the life I owe,
That in Thine ocean depths its flow
May richer, fuller be.

O Joy that seekest me through pain,
I cannot close my heart to Thee;
I trace the rainbow through the rain,
And feel the promise is not fain
That morn shall tearless be.



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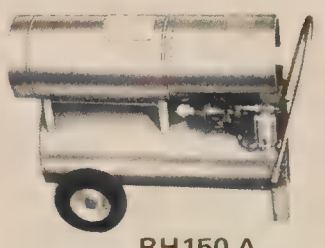
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HANDY for Farm and Home

Emergency Wrench – If you need an adjustable wrench, and have no tools available, you are in business if you can locate a large bolt and two nuts. Thread both nuts onto the bolt, adjusting them to fit snugly over nut of bolt you wish to remove or tighten. Apply downward pressure with one hand to keep improvised wrench from lifting away from the nut while you are turning it with the other hand. The longer the bolt, of course, the more leverage you can apply to the nut.

Sanding – A flexible sanding disk for a power drill can be cut from an old inner tube. Cut around the tube's valve stem in a circle slightly larger than the abrasive disk you plan to use. Attach the abrasive disk to the circle of the inner tube with rubber cement. If the valve stem is covered with rubber, cut away the covering to the metal core, which will fit in the drill's chuck.

Sandbagged – If you experience trouble holding small pieces in position for welding, place them in a box of sand. The sand will keep them in position while a few tack welds are made to hold the work in place. The work can then readily be moved to the welding table for completion of the job.

Tab – After removing the amount of electrician's tape you need from the roll, press a small button or a penny under the loose end before storing. The next time you need tape, the end will be easy to pull free.

Liptack – To suspend a brush in a pail partly filled with solvent or turpentine , press a thumbtack halfway into the handle and set the head of the tack over the lip of the can. The brush will remain suspended vertically at the side of the can. Adjust the depth the bristles rest in the solution by moving the tack up or down the handle.

Soot Soap – One of the best materials on the market for cleaning the accumulated soot from the bricks of a fireplace is ordinary mechanic's hand soap. The pasty soap, available in most auto supply and hardware stores, contains a mild abrasive. When scrubbed over the sooted bricks, it will return them to their natural lustre. Use a household scrub brush to apply the soap, and rinse with clear water.

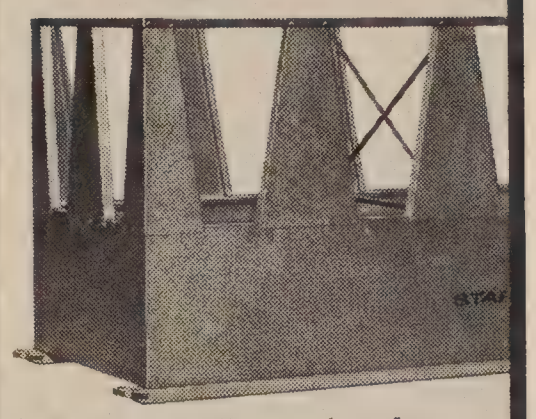
Paint Carton – Old waxed paper milk cartons . . . from which milk residues have been rinsed . . . are handy for mixing up small batches of paint. The top of a carton can be cut off to provide a container of convenient size, which may be discarded when job is finished.

Labeled – Before commencing a job of painting, remove the label from the can and cut the essential information . . . color, lot number, etc. . . . from it. Tape or glue this square of information to the top of the can's lid. It will be protected from paint splatters. If you need more paint to finish the job, it's easy to read the information you need from the lid.



Manure power is what Lebanon County, Pennsylvania extension agent Newton Bair uses to mow his lawn. Methane gas generated from a decomposing cow-manure slurry is collected from a home-made digestor created by Lebanon County agents Bair and Glenn Miller and then pressurized. The agents fashioned their own carburetor for the tractor as well. Photo: Donald Harter

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STARCRAFT'S long-life portable Hay Feeder. It's made of tough 16-gauge galvanized steel, has all rolled edges for safety, 14 openings for large herd capacity, comes complete with 10 ft. skids. See your dealer now or write:

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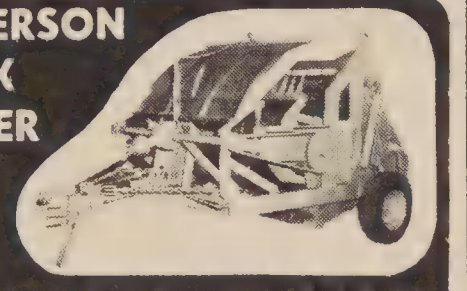
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Dollar Guide

FERTILIZER SHORTAGE in '74 is being predicted by government and industry spokesmen. Phosphorus and nitrogen supplies are especially tight. Early fertilizer purchase usually offers price discount ... if paid for before December 31, can lower taxable income for 1973 ... and will insure no fertilizer hangup when ready to plant next year.

Shortage predicted for 1973 didn't materialize, but it looks for real next spring.

YEAR-END TAX MANAGEMENT is legal, and often profitable. Purchasing major equipment late in the year can have big effect on taxable income, as can purchases of farm supplies. Sales of farm products can also be made on a deferred payment contract to delay income to the next taxable year ... but be sure to check with a tax expert to be sure the deal meets IRS requirements.

U.S. EXPORT of grains from July 1, 1973 to June 30, 1974 will include at least 778 million bushels of wheat, a billion bushels of corn, and 546 million bushels of soybeans. These figures do not include export sales reported with unidentified destinations ... so final shipments will probably be larger than figures here.

HEATING-OIL SHORTAGE looks more likely in Northeast every day. Arabs likely to cut U.S. off at the oil wells if more help is given the Israelis.

If we have a hard winter, plus drawn-out war in Mideast, look out! Wouldn't hurt to have a wood stove available for emergency heat ... practically every farm has a woodlot and chain saw.

DAIRYMEN are feeding less grain to their cows than in 1972, and national production will likely be down about three percent this year as compared to last. Milk prices will continue strong for at least next six months. Net income to dairymen is under pressure because of soaring costs ... net returns to dairying in 1973 will be lower than in '72.

FLOOD DAMAGE suffered by farmers can be claimed as a loss against either 1972 or 1973 income. Ask your IRS office for Publication 547, entitled "Tax Information on Disaster, Casualty Losses, and Thefts."

U.S. RED MEAT PRODUCTION was down by 14 percent in August as compared to a year ago ... beef output down 17 percent. Hog prices broke sharply in September, down 21 percent from month earlier. What non-farm consumer would accept a 21-percent drop in wages within a month?

RISING FARM INCOME is rapidly being capitalized into land values ... a reaction always typical of agriculture. Iowa ag economist reports good farmland there has jumped $100 to $200 per acre in sale price above a year ago.

VALUE OF LIME is as great as ever ... even if government doesn't help pay for it any more. Fall is good time to apply it.

DON'T store LP-gas in tanks designed for anhydrous ammonia unless you've followed procedures available from LP-Gas Association, 79 Monroe Street, Chicago, Illinois 60603.

FRUIT GROWERS selling "U-Pick" produce are advised by regional extension specialist Dick Pease (Lockport, New York) to sell produce by the pound, rather than by the measure. He reports one grower sold strawberries at 25 cents per pound in 1973.

BULK STORAGE for fertilizer and grain can put a farmer in the big-volume-purchase category, and thereby cut his costs per unit purchased.

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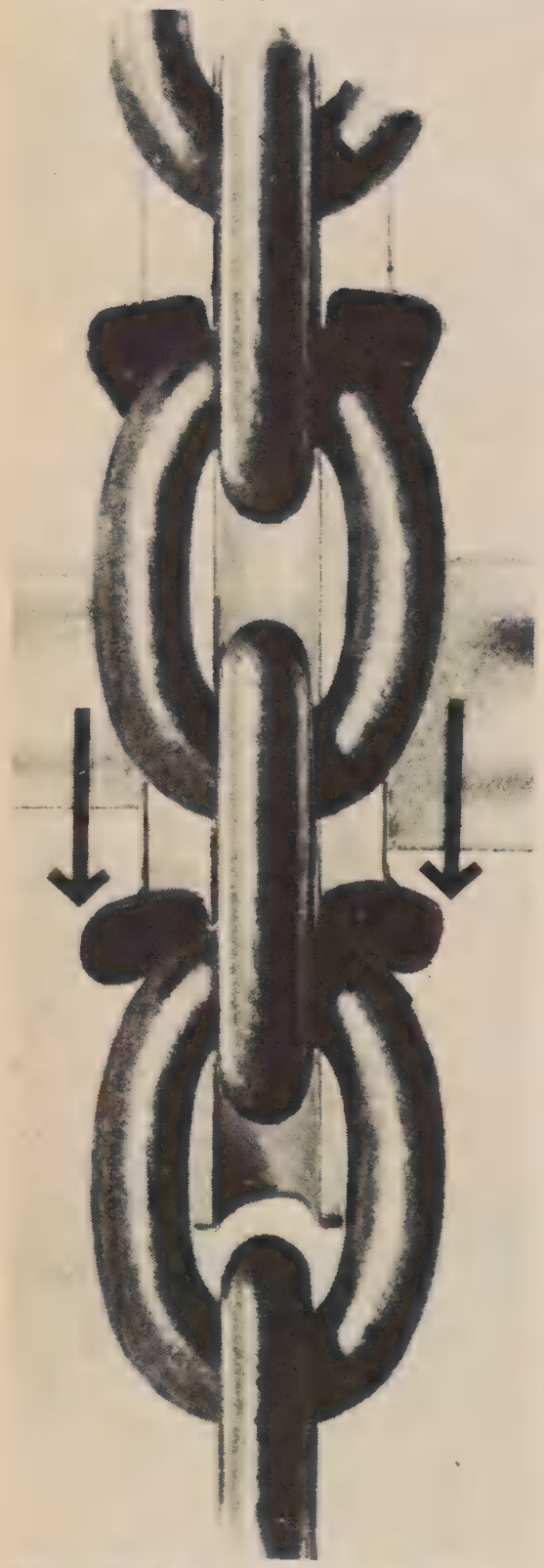
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We always say that our Hawaiian Holidays are "trips to paradise" (and so they are), but then we have a problem when it comes to writing about our South Pacific vacations. Imagine five glorious weeks visiting Samoa, Fiji, Australia, Tasmania, both the north and south islands of New Zealand and Tahiti!

How do you describe the superlative of "paradise"? It's practically impossible, so we'll just invite you to come along on our **South Pacific Holiday** from **February 2 to March 8** and see for yourself what it's like.

From all parts of the country, we travel to California for the start of this fabulous vacation. Our first stop is Pago Pago in **American Samoa,** which is incredibly beautiful and unspoiled. We will drive through picturesque villages to see how the Samoans live and work. They are said to be the happiest of all Polynesian peoples, keeping the warmth, grace and charm of their ancestors.

We'll thrill to the spectacular cable car ride across Pago Pago Bay, renowned as the South Pacific's most beautiful natural harbor. Other highlights of our visit to Samoa are a tour of the world-famous Education Television Studios, a visit to a Starkist or Van Camp tuna cannery and a real Samoa fiafia (feast).

Leaving Samoa, we cross the International Date Line and land next at Nadi International Airport on **Fiji.** We drive along Queens Road, famous (or perhaps infamous) for its uneven surface, to Suva, the capital city.

Sightseeing here includes the Fiji Museum, Botanical Gardens, Reservoir Lookout and the City Market (to hunt for bargains). Suva has long been known as the shopping center of the South Pacific to steamship travelers. You might also like to try your luck deep sea fishing or take a glass-bottom boat cruise to see the underwater wonders of a coral reef.

We will spend several days on the **Island Continent of Australia** and nearby **Tasmania.** It is possible to mention only a few of the many places we will visit. We'll fully explore Sydney, the South Pacific's largest and liveliest metropolis, and take an excursion to Palm Beach and the Hawkesbury River, with a launch cruise on Cowan Waters. We'll also visit the Koala Sanctuary.

Canberra is the nation's capital and one of the few in the world which is totally planned. Here we'll see the Houses of Government, Civic Center, American War Memorial, the Royal Australian Mint and pay a visit to an authentic working sheep station to watch dogs muster the sheep for shearing.

Melbourne is a city of dignity and elegance, with the Yarra River meandering between grassy banks close to the city's center. Beautiful parks and gardens take up nearly a quarter of the downtown area. We'll see Captain Cook's cottage shipped from England in 1934 and faithfully re-erected in Fitzroy Gardens, visit the Healesville wild life sanctuary, the picturesque Blue Dandenong Ranges and Phillip Island, a sanctuary for koalas, seals, mutton birds and fairy penguins.

The cities of Hobart and Port Arthur will be on our Tasmania itinerary. Among the interesting places we'll see here are historic Penal Settelment, Tasmans Arch, the Tesselated Pavement and Blowhole.

New Zealand Has Everything

New Zealand is a little world in itself, with mountains and lakes, fjords and glaciers, geysers and waterfalls, plains and pastures. You'll find every kind of scenery, from subtropical beauty to alpine grandeur.

On the North Island we'll stay in the lovely city of Auckland. While there we will go to Waitomo Caves to see the unique Glowworm Grotto, where the cavern's entire roof is studded with lights of a million glowworms. We will also visit Rotorua with its boiling mud pools, geysers and springs; here, too, are Maori settlements where descendants of early Polynesian navigators have preserved much of their cultural past – their way of living, carvings, music and dances.

Next comes the quaint city of Christchurch on the South Island. This is said to be the most British town outside of England. We'll fly to magnificent Mt. Cook, and those who wish may make a flight over the whole glacier area. Then we'll go to the resort town of Te Anau and make an excursion into the fjord district at Milford Sound.

Last, but not least, on our holiday in Paradise comes Tahiti, land of matchless tropical scenery and charming, uninhibited people. On our way here we again cross the International Date Line and re-gain the day lost a month earlier. We will enjoy Tahiti's many attractions – shopping and strolling in Papeete, a circle tour of the island and a cruise to neighboring Bora Bora, native feasts and entertainment.

It is impossible to adequately describe this trip to the South Seas' enchanting islands. It will be truly a once-in-a-lifetime experience! We hope you will send for the free, illustrated leaflet and plan to be with us when we leave for Paradise on February 2.

Gordon Conklin, Editor
Box 370-T
Ithaca, New York 14850

Please send me without obligation on my part, the following tour itineraries:

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Don't forget those

Wholesome Whole Grains

by Marcia Pimentel



Photo: Kellogg Company

This tender, light Whole-Wheat Quick Bread is indeed quick to mix. It compliments a light tossed salad lunch and, rewarmed, is a good partner for a baked bean casserole.

How long has it been since you have baked with a flour other than white flour? Perhaps you have forgotten the unique flavor whole-wheat flour, corn meal or rolled oats impart to a muffin or quick bread.

Grocers' shelves seem well supplied with a wide variety of flours and meals. Any whole grain cereal or flour which, as you know, contains the germ should be stored in a cool place to prevent the fat of the germ from developing a rancid, off-flavor.

Whole-wheat flour, or graham flour as it is sometimes labeled, contains the outer bran layer of the wheat kernel, as well as the highly nutritious wheat germ. When all whole-wheat flour is used, the quick bread or yeast bread will not have as great a volume as when made with regular flour. The bran flakes cut and shorten some of the strands of dough, making the product smaller in size but also tender.

Whole-wheat flour can easily be substituted for up to one-half the amount of all-purpose flour in quick bread recipes without altering the recipe in any way. In addition to the following recipes, you may wish to try some of your own, using part whole-wheat flour for a different taste and texture.

WHOLE WHEAT QUICK BREAD
(Illustrated)

¼ cup sugar
1 egg
½ cup molasses
1 tablespoon vegetable oil
1 cup all-purpose flour
1 teaspoon baking soda
½ teaspoon salt
1 cup whole-wheat flour
1 cup buttermilk
½ cup raisins (optional)

Beat sugar and egg, add molasses and oil and beat well. Sift all-purpose flour, soda and salt. Add whole wheat flour. Add dry ingredients and buttermilk to sugar-egg mixture and stir well. The batter will be thin.

Pour into well greased 9″ × 5″ loaf pan. Let stand 10 to 15 minutes. Bake in 350° F. oven about 40 minutes, or until it tests done. Cool completely before cutting, as this is a tender loaf.

CALIFORNIA WHOLE GRAIN LOAF

1 cup whole-wheat or rye flour
1 cup all-purpose flour
1 teaspoon baking powder
1 teaspoon soda
1 teaspoon salt
½ teaspoon cinnamon
¼ cup sugar
¾ cup rolled oats
⅓ cup wheat germ
½ cup molasses
1¼ cups buttermilk
1 cup raisins
½ cup chopped walnuts (optional)

Sift flours, leavening, salt, cinnamon and sugar into a large bowl. Stir in oats and wheat germ. Combine molasses and buttermilk and add to dry ingredients, mixing well. Add raisins and nuts (batter will be thin).

Pour batter into a well greased 9″ × 5″ loaf pan or two smaller 4″ × 7″ loaf pans. Let stand about 15 minutes. Bake in 350° F. oven, 55 to 60 minutes for large pan and 35 to 40 minutes for small loaves. Cool thoroughly and wrap.

Note: For some reason, the California Whole Grain Loaf tastes better the second day when flavors have blended and mellowed together.

Rolled Oats

If you want to try your hand at making your own natural cereal, the following recipe is a starter. The real fun comes in using your own ingenuity to give variety and suit the particular likes of your family.

In the second recipe, rolled oats and whole wheat flour combine to make a tender shortbread cookie.

HOMEMADE GRANOLA

2 cups rolled oats
½ cup wheat germ
1 cup raisins°
½ teaspoon cinnamon
¼ cup honey
⅛ cup vegetable oil

Combine first four ingredients in a large bowl. Mix honey and vegetable oil and add to dry ingredients, stirring well to distribute liquids.

Spread in a shallow pan (a jelly roll pan or large cookie sheet is ideal) and bake in a 350° F. oven for 10 minutes, until flakes are lightly browned. Stir if necessary.

Cool and store in a tightly covered container. Yield: 3 cups.

Variations: Add any of the following — 1 cup shredded coconut, ½ cup chopped nuts, ½ cup hulled sunflower seeds, or substitute ½ teaspoon vanilla for cinnamon.

°Raisins are in short supply in some areas. Chopped dates, prunes or apricots can be substituted.

SHORTBREAD OATIES

¾ cup vegetable shortening
¼ cup soft butter
1 cup sifted confectioners' sugar
2 teaspoons vanilla
½ cup whole-wheat flour
½ cup all-purpose flour
½ teaspoon salt
¾ cup rolled oats

Cream shortenings; gradually add sugar and vanilla. Continue creaming until light and fluffy.

Combine flours and salt, add oats and mix to distribute evenly. Then stir all dry ingredients into creamed mixture. This can be done either with a wooden spoon or electric mixer.

Divide dough into halves. Shape each half into a roll about 1½″ in diameter and wrap in waxed paper or foil. Chill thoroughly at least 2 hours.

Cut rolls into ¼-inch slices. Bake on ungreased cookie sheet in 350° oven about 12 minutes. Cool thoroughly. Yield: 3½ to 4 dozen small cookies.

Corn Meals

Both yellow and white corn are milled into corn meal, and the grind seems to vary from quite coarse to an almost powdery fineness. The finely ground brands give a much finer, softer texture. Corn meal lacks the structural components of wheat all-purpose flours. Therefore it cannot be substituted for all the regular flour, unless the recipe has been modified by changing quantities of milk and eggs.

If you like corn, you will like these Old Fashioned Cornsticks, which combine corn meal and creamed corn. Another variation of cornsticks is the recipe for Bran Cornsticks developed by the Kellogg Kitchen.

In using any cornstick recipe, it is essential that you grease your pans liberally and then heat them, before spooning in the batter. If you forget this, the sticks will not be crisp, and you may have trouble getting them out of the pans.

OLD FASHIONED CORNSTICKS

1⅓ cups all-purpose flour
2 teaspoons baking powder
½ teaspoon salt
2 tablespoons sugar
⅔ cup yellow corn meal
1 egg, well beaten
⅔ cup canned cream-style corn
1 cup milk
2 tablespoons vegetable oil

Prepare cornstick pans by greasing them well and placing in 425° oven.

Sift together flour, baking powder, salt and sugar. Stir in corn meal. Blend egg, corn, milk and oil. Add to dry ingredients all at once, stirring just to moisten.

Spoon batter into heated cornstick pans. Bake in 425° F. oven for 18 to 20 minutes, until sticks are lightly browned. Yield: 12 cornsticks.

BRAN CORNSTICKS

3 tablespoons vegetable shortening or oil
¼ cup sugar
1 egg
1½ cups milk
1 cup All-Bran (ready-to-eat cereal)
¾ cup corn meal
1½ cups all-purpose flour
1 teaspoon salt
4½ teaspoons baking powder

Blend shortening and sugar, creaming well. Add egg. Stir in milk, All-Bran and corn meal. Let mixture stand about 10 minutes or until most of the moisture is absorbed.

Sift together flour, salt and baking powder. Add dry ingredients to liquids, stirring only until just moistened.

Fill greased, heated cornstick molds and bake in a 400° F. oven about 30 minutes. Yield: 14 bran-cornsticks.

Bran Cereals

As with the cornsticks, bran cereal is used successfully with all-purpose flour in making a moist and tender muffin or bread. All-purpose flour is needed in these recipes to give the batter structure.

ANNA'S BRAN MUFFINS

1 cup all-purpose flour
⅓ cup sugar
½ teaspoon salt
1 tablespoon baking powder
1¼ cups Raisin Bran
1 egg
¾ cup milk
¼ cup vegetable oil

Sift flour, sugar, salt and baking powder. Stir in Raisin Bran. Mix egg, milk and oil. Pour liquid ingredients into dry, mixing to completely moisten.

Pour into well greased muffin tins. Bake at 375° F. oven for about 15 minutes, or until muffins are lightly browned. Yield: 10 to 12 muffins.

DATE BRAN BREAD

1½ cups all-purpose flour
3¾ teaspoons baking powder
½ cup sugar
1 teaspoon salt
1 cup milk
2 eggs, slightly beaten
⅓ cup vegetable oil
½ teaspoon vanilla
1½ cups whole bran cereal
¾ to 1 cup chopped dates

Sift flour, baking powder, sugar and salt. Combine milk, eggs, oil and vanilla. Add bran and stir well to moisten.

Add milk-bran mixture to dry ingredients, stirring just to moisten. Gently fold in dates. Bake in 9″ × 5″ × 3″ loaf pan in 350° F. oven for 45 to 55 minutes.

NYS Mother of the Year

"Sold" On Dairy Products



Esther Twentyman polishes their 1927 Ford car, as she, Jane and Gerald ready it for the Cortland Antique Auto Rally.

Although Esther Twentyman, the 1973 New York State Mother of the Year, was raised on a dairy farm, married a dairy farmer and lives on a dairy farm now, she can't milk a cow! She happily admits, however, that this hasn't hindered her from whole-heartedly believing in dairy products. "There is no other food product that's the bargain milk is," she states emphatically.

Through the years, Esther has put into practice her confidence in the value of dairy products in feeding her family and raising four "milk-fed" children. Now, as Director of the Art and Home Center at the New York State Fair, she has many new opportunities to promote the use of milk. "I always make sure milk and other dairy products are served at our luncheons," says Mrs. Twentyman.

Raised on a farm in Homer, New York, seven miles from her present home, Esther says that as a child she didn't help much with the actual barn work. "My father always figured the barn was no place for a girl, but I did a lot of outside work with horses and tractor."

She does know what goes into dairy farming, though, and proved it four years ago when her husband, Gerald, had an accident and she had to run the farm for ten weeks. She can drive the tractor, herd the cows, manage the barn and handle all the other jobs . . . except milking the cows. That was done by an employee or her sons.

The Twentymans bought their 275-acre farm from Gerald's parents in 1943. They have 100 head of Holsteins and milk 42 to 44, producing about a ton of milk daily. "Gerald was born in the house we live in now," Mrs. Twentyman added.

The Twentyman children are all interested in agriculture. Jim, the eldest, is a commodities trader in California; Lee, a former Peace Corps volunteer, is working for the U. S. Department of Agriculture Foreign Food Distribution Program, while earning his master's degree at the University of Maryland.

A 1973 Cornell University graduate, Mark has been assigned to the Mato Grosso area of Brazil and is interested in working as a Peace Corps volunteer in farm finance. Their youngest, Jane, is a junior at Homer Central School.

A Nut On Nutrition

A Cornell University alumna, Esther explained her personal commitment to dairy foods – "I'm a nutrition nut, and I think it's terribly important for a child to grow up drinking milk. Every child has the right to three good meals a day, and I've always taught mine the value and goodness of milk."

Mrs. Twentyman bakes bread for the family table using natural products – eggs, butter, wheat germ and milk, of course. "I also make a special effort to cook with milk and serve milk products at home, like lots of ice cream, puddings and cottage cheese. I have a macaroni and cheese recipe a lot of friends enjoy and a special cream cheese pie," she said.

"There's just no comparison to the flavor real milk and butter give to a dish," Mrs. Twentyman states, "and any famous cook or chef I've met will not use substitutes for the real product."

And she's met a lot of culinary experts in her job as Director of the Art and Home Center, a position she's held since 1971. Her duties range from organizing student art displays to scheduling an exhibition of Jewish cooking in the Center's demonstration kitchen. Among the chefs who have appeared at the Fair recently are Rudolph Stanish, John Clancy, David Greene, Hortense Bell, Elizabeth Heinman and Elizabeth Alston.

The Twentymans have been involved with promotion of milk on the county level for years. Mrs. Twentyman explains, "We feel that since milk is our main source of income, we should bear some responsibility for promoting what we produce, so we support the Milk Promotion Order."

She added, "Dairymen who don't support it figure people will always drink milk, but milk consumption is down and promotion is needed." Esther is busy doing just that – in her home, her community and at the New York State Fair.

Favorite Recipes

Here are two make-it-with-milk recipes from New York State's Mother of the Year.

CREAM CHEESE PIE

16 honey graham crackers
¼ pound soft butter
1 teaspoon sugar

1 8 oz. package cream cheese
1 3 oz. package cream cheese
2 eggs
½ cup sugar
1 teaspoon vanilla
6 tablespoons cream

2 cups (1 pint) sour cream
1 teaspoon vanilla
2 tablespoons sugar

Crush graham crackers and mix with butter and 1 teaspoon sugar. Press mixture into a 10-inch pie plate and chill one hour.

Whip the softened cream cheese until frothy. Add eggs, ½ cup sugar, 1 teaspoon vanilla and cream, mixing in each ingredient thoroughly before adding the next one. Beat the mixture and spoon into the chilled pie shell.

Bake at 300° F. for 25 to 30 minutes. (The custard should not stick to your fingers if you touch it.) Cool 20 minutes. Keep oven hot for topping.

Mix sour cream, vanilla and sugar with a fork and spread on top of the pie. Place pie in oven (300°) for 5 minutes. Cool and store in refrigerator for several hours. Serve with Orange Sauce.

ORANGE SAUCE

6 California navel oranges
⅔ cup sugar
2 teaspoons kirsch or red wine
2 teaspoons grenadine

Use firm, good quality oranges for this recipe. Peel and section oranges; remove all membranes leaving only pulp of the orange. Set aside the peel of 2 oranges.

Boil the sugar and ⅓ cup water for 5 minutes. Cut reserved orange peel in slivers and add to the syrup and bring to a boil again. Add oranges; heat until boiling point is nearly reached and then immediately remove from the stove.

For coloring, add grenadine and 2 teaspoons kirsch or red wine. Cool mixture at room temperature, then set in refrigerator.

MACARONI AND CHEESE

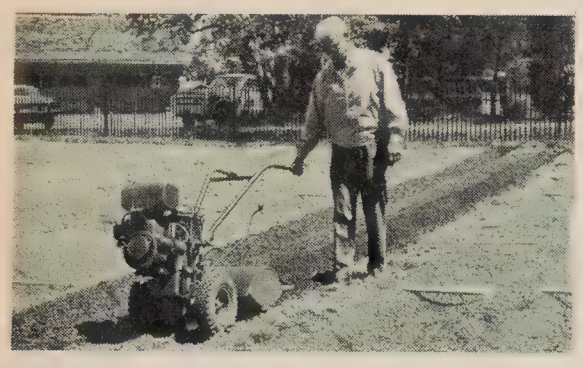
2 cups macaroni
½ pound grated cheese
2 tablespoons butter
1 tablespoon flour
2 cups milk
4 teaspoons minced onion
½ teaspoon dry mustard
¾ teaspoon salt
Dash of pepper
Buttered cracker crumbs

Cook macaroni in 2 quarts boiling water to which ¾ teaspoon salt has been added. Make a sauce of butter, flour and milk in a double boiler. Save a little cheese to sprinkle over top of casserole; add remaining cheese and other seasonings to the sauce after mixture is slightly thickened.

Place drained, cooked macaroni in baking dish and cover with cheese sauce. Sprinkle top with reserved cheese and buttered cracker crumbs. Bake at 400° F. for 20 minutes.

Editor's Note – Esther Twentyman represented New York State in the National Mothers Committee Conference in Denver and placed in the top ten contestants.

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GARDEN TALK

by Doc and Katy Abraham

Chinese Lanterns

The so-called "Chinese Lantern" has been exceptionally showy this year. Best time to gather is when fruits are of a papery texture and a vivid orange. Some gardeners leave the orange "balloons" just as they are, while others like to take a razor and cut along the veins from tip to base, so pods will curl into interesting shapes. Split a few of the pods into three or more sections for something a bit different.

To cure, remove all foliage and dry by hanging stems upright. When dry, spray the pods with clear plastic, varnish or hair spray. Green pods can be used in fresh or dried arrangements, and they "cure" overnight.

Honesty or the Silver Dollar plants can be gathered after the seed pods mature and then are hung up until dry. Rub off the outer coverings to expose the luminous discs. They can be sprayed with aluminum paint for Christmas decorations or indoor arrangements.

Why not gather sumac fruit for indoor bouquets? Cut the fruit when young and green or later, as soon as they are red. Dry by hanging in the garage. Did you ever try pressing the brilliantly colored leaves?

You can also cut the red berries from your asparagus patch and use them indoors. Cut the berries as soon as they mature (or when red), dip in shellac and alcohol and drip dry. Don't hesitate to experiment with many flowers and weeds growing along the road and in the meadows.

Store Vegetables

It's amazing how long you can store green tomatoes! It's possible to keep them up to six weeks. Remember that the large, light green ones will ripen best in storage. Very small, immature tomatoes will not ripen well off the vine.

Green tomatoes reach an eating-ripe stage in about two weeks if held at 65 to 70 degrees. If kept at about 55 degrees, however, it will take them about four weeks to ripen. Never store tomatoes for ripening where temperatures drop below 50. After tomatoes are fully ripe, they can be placed in the refrigerator.

Peppers store best at temperatures between 45 and 50 degrees. Since they are more subject to drying, wrap them in plastic or use small plastic bags.

Pumpkins and squash can be stored without refrigeration. Allow the stems to remain attached. First, place them in a warm room at temperatures from 80 to 85 degrees, for about 10 days. After that time, move them to a dry place where temperatures range from 50 to 60 degrees. Never store them where temperatures drop below 50.

Acorn squash is an exception and can be stored at a temperature as low as 45 degrees. In this way, many squash can be kept until February. Do not pile squash in a tall box or basket. Spread them individually on a shelf for best storage.

Sweet potatoes can be kept until April or May. Cure them at 80 degrees for about 10 days. After that time, store them where they have temperatures between 55 and 60 degrees. Sweet potatoes are subject to chilling injury and should not be exposed to temperatures below 50 degrees.

Home Greenhouses

With fuel prices going up daily and fuel being hard to get in some areas, you should conserve the gas or oil used for heating your greenhouse. One way to save on the fuel bill for the hobby greenhouse is to keep the night temperature low.

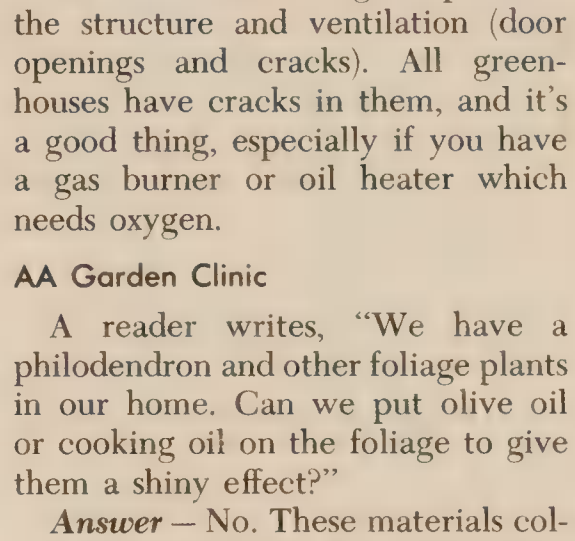
It's a fallacy to think that greenhouses need a lot of heat at night, especially when the temperature drops down. For most plants, a night temperature of 50 degrees is sufficient. At night plants are more or less resting and do not need high heat.

Keep in mind that heat is lost from a greenhouse by radiation, conduction and convection through glass, walls and other non-glass parts of the structure and ventilation (door openings and cracks). All greenhouses have cracks in them, and it's a good thing, especially if you have a gas burner or oil heater which needs oxygen.

AA Garden Clinic

A reader writes, "We have a philodendron and other foliage plants in our home. Can we put olive oil or cooking oil on the foliage to give them a shiny effect?"

Answer — No. These materials collect dust and clog the pores. Some people use a mixture of skim milk and water, half and half. Take a piece of cotton or wool and wipe the leaves with this mixture if you want a clean, shiny appearance. Never use oils, as they cut the plant's efficiency.



TALKING TURKEY

by Geraldine Ross

One can't be careless of one's talk;
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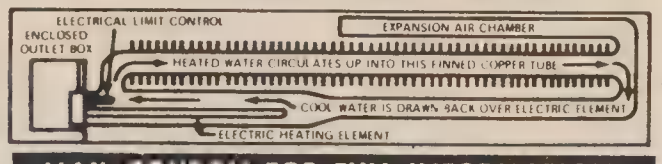
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George exhibits a can of sour colostrum well over a week old. This was made in the summer.

Pickled colostrum

Dairymen George Saxton, Jr. of Union Springs, New York and Ed Fessenden of King Ferry, New York have virtually eliminated scours by feeding "sour" or pickled colostrum to their calves. An idea that originated in England, pickled colostrum is one of those things that is relatively unresearched, but works anyway.

It seems that colostrum, unlike regular milk, undergoes "favorable" acid fermentation when kept in a plastic garbage can. In fact, it smells like buttermilk. Instead of throwing away the first four or five milkings of colostrum that can't be fed fresh, it can be put into plastic garbage pails and left to set at barn temperature.

"At first it gets thick on top," explains George, "but after you stir it, the heavy part goes to the bottom and stays there. Eventually it gets to be the consistency of paint."

He threw away a can or so of pickled colostrum this summer because it curdled some from the heat and he was wary of using it. "However, I decided to try some and watch the calves closely. They liked it and did just as well on it as they did on the stuff that didn't curdle."

Ed, on the other hand, chose not to feed pickled colostrum during the summer because he noticed the curdling, and had decided to keep some milk-hungry bull calves for vealers anyway.

There is really no "pickling" needed . . . at least in the sense of pickling cucumbers. Just pour extra colostrum into a clean container and it pickles itself. A cow's first five days of milk will usually make enough sour colostrum to feed a calf five to six weeks.

Mixture

Ed feeds two quarts per feeding which consists of one quart of half-and-half (half pickled colostrum, half water) mixed with a quart of fresh milk. George mixes six pounds of pickled colostrum with six pounds of water per day.

There are a couple of ways to maintain a supply. One is to keep adding to the same can of pickled colostrum being fed. Another is to fill a can with one batch and use it until empty without adding to it. George says he prefers to make it in batches because it makes for a more uniform product.

One thing George warns against is adding colostrum (or regular milk) that comes from a quarter being treated with antibiotics. "I did that," he says, "and the whole batch spoiled on me."

Some dairymen feed pickled colostrum because they say it has some nutritive value that other feeds don't have. Others use it because it saves throwing away the first few days' worth of unsalable milk when a cow freshens, and eliminates milk replacer costs.

Whatever the reason, pickled colostrum, to our knowledge, hasn't received a bad report card yet. As George says, "I haven't had more than two calves scour in a year." — *E,P.A.*

Neal Jorgensen, University of Wisconsin dairy scientist, says farmers should feed a newborn calf the mother's fresh colostrum the first feeding. Start blending the mother's milk with pickled colostrum the second feeding.

By the second day, the calf should drink about two pounds of blended colostrum per feeding. On the third day, mix two pounds of warm water with two pounds of colostrum per feeding.

Jorgensen adds that a coarsely-ground, palatable calf starter ration is important to a pickled colostrum feeding program.

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The lineup of light and medium-duty trucks for 1974 continues an industry-wide trend of several years' standing toward ruggedness with style and utility with comfort.

The major manufacturers' pickup remain basically unchanged from 1973, except for two new models from International.

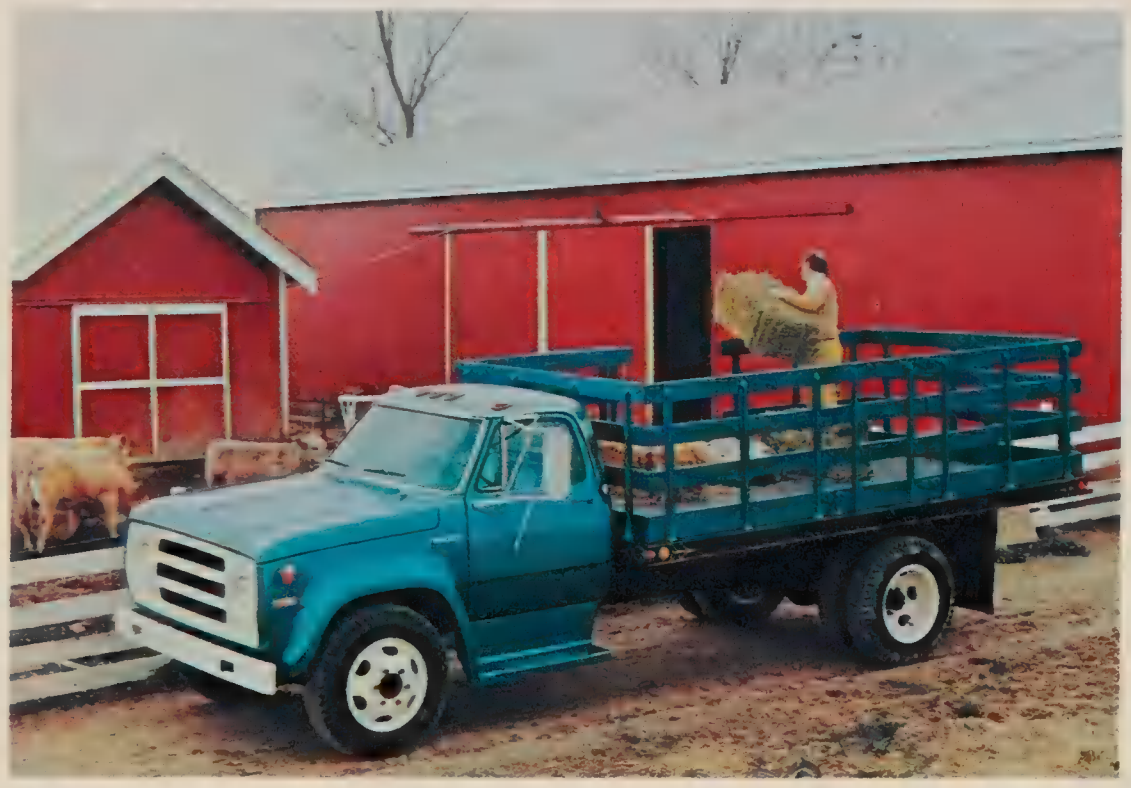
The 100 and 200 pickups have a new chassis, a four-inch wider wheel track, and share new styling in hood and grille with the rest of the new International light-truck line.

Dodge, which introduced its Club Cab a year ago, has announced a new medium-duty line for 1974 — the D500, D600, and D800. The new models have a new cab and front sheet metal, and are available in gross vehicle weights (GVW) of 14,800 to 29,750 pounds, and as dump, stake, van, or tractor-trailer units.

The pickups from Ford and Chevrolet/GMC underwent major mechanical and styling revisions in 1973, and are virtually the same units this year. The GMC medium-duty line offers a new dual hydraulic booster brake system on most models.

AMC's Jeep Division, its Quadra-Trac 4-wheel-drive system proven in a year of use, offers it as standard or optional equipment on all its trucks for 1974.

Truck designers, unafflicted by a need for annual cosmetic changes, introduce radical changes only about once every five or six years in a given line, concentrating in the interim on minor improvements often introduced with little hoopla in mid-year. Most of the light and medium trucks for 1974 reflect that common-sense approach. □



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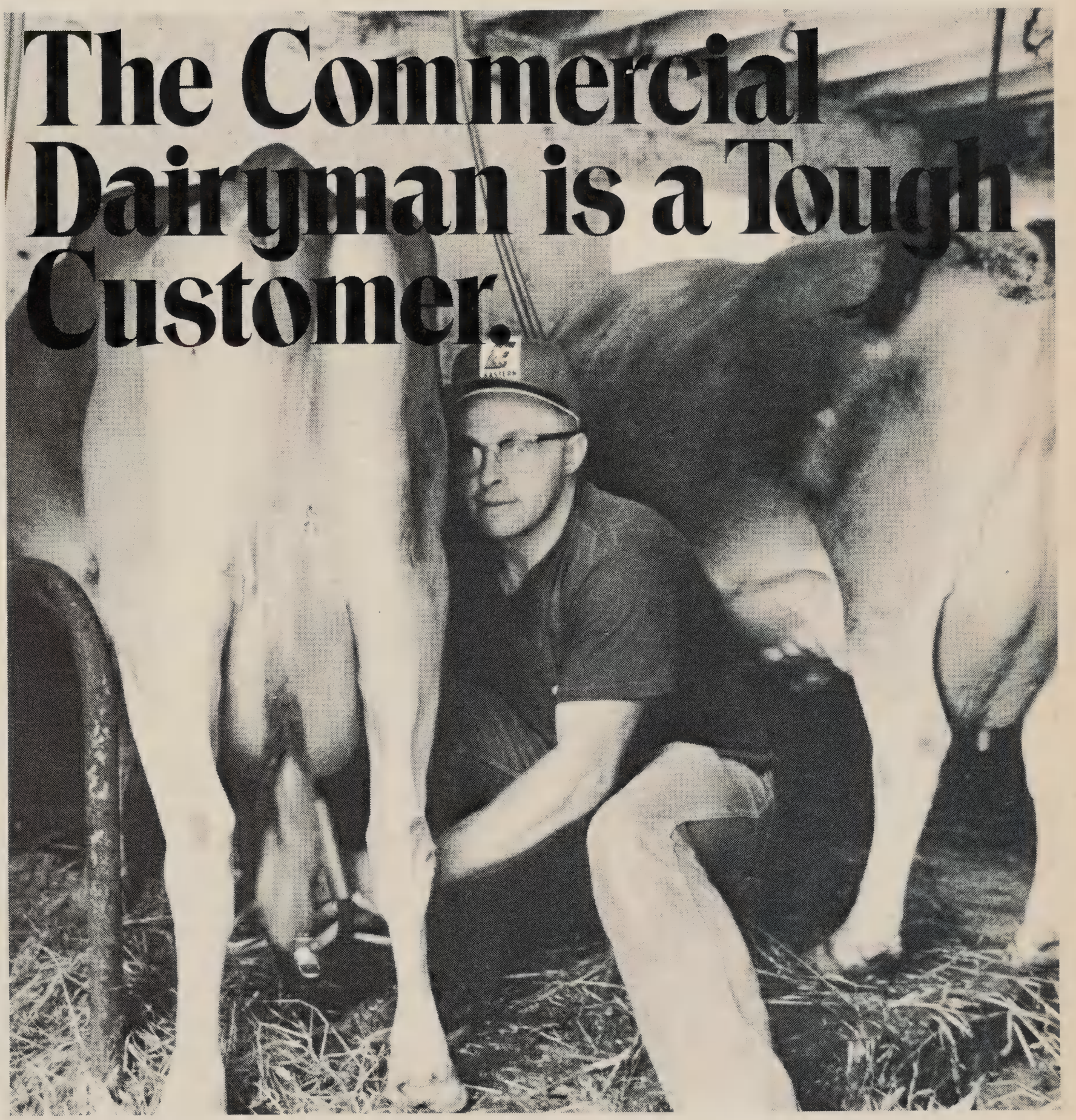
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THIRTY YEARS EXPERIENCE as dairy and cash crop farmer; tell me your needs. Farms from 50 to 1,200 acres. Open and recreational land in Finger Lakes Region. Hugh Casler Real Estate Broker - phone 315/626-6446. Box 202, Cato, New York 13033.

FARMS - FINGER LAKES AREA. 100-400 acres, dairy, poultry, beef, crop. New listings regularly. Residential, commercial, land, lake properties. Accepting new listings now. Coleman Real Estate, Trumansburg, N.Y. 14886. 607/387-4793 anytime.

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FARMS FOR SALE

DAIRY DELIGHT. Level 150 acres. Fenced and cross fenced. 90 tillable, 30 wooded, balance pasture. Est. stock capacity: 80 cattle. Nice 20 room home with all utilities in; plus four bedroom home. Good 36x120′ barn, silo, 51 ties. Other buildings incl: corn crib, machine shed. Big, beautiful and buyable $102,000. Strout Realty, Inc., R.D. #2, New Berlin, N.Y. 13411. 607/847-9288. Free local lists.

DAIRY MONEY-MAKER, 200 Holsteins included. Walk-in 460-acre New York dairy farm reported $100,000 income last year from sale of milk and calves. Comes with registered Holstein herd including 100 milkers and 100 heifers, plus six tractors, crawler, Cat., gleaner combine, baler, other machinery included. 12-room Colonial home in very good repair. 35x300 main barn, 2 cleaners, 8 DeLaval milkers, 2 bulk tanks, 20x70 Harvestore, other buildings. 300 acres tillable, springs, 2 creeks. On state highway. Move up to this one for $560,000 complete, good terms. Free - big 264-page Fall Catalog! Describes and pictures hundreds of farms, ranches, town and country homes, businesses coast to coast! Specify type property and location preferred. United Farm Agency, 501-AA Fifth Ave., New York, N.Y. 10017. Phone 212/687-2623.

TIOGA COUNTY, N.Y. - A 94-acre farm - new steel building, new 2-car garage, 3 bedroom home remodeled (in excellent condition). Call owner at 607/659-7042.

260 ACRE OPERATING DAIRY farm in Central New York. 61 stanchions, nice home, $99,500. Offers considered. 217 acre dairy farm, 50 stanchions, silos, etc. $130,000, aking. Many other farms large or small. Call George VanderWoude at 607/849-3907, salesman for appointment only. The Cirba Company-Realtors, 680 Main Street, Johnson City, New York 13790.

IDEAL DAIRY FARM - $84,500. Near Lake Ontario. 150 acres, nearly all tillable. Fishing brook, 150′ gambrel roof barn, 53 ties, bulk tank, barn cleaner, milker, 2 silos, unloader. Charming 4 bedroom Colonial, stone fireplace, 1½ baths, hot water heat. LaRock Realty. Martville, N.Y. 13111. 315/564-5400.

NEW YORK STATE Dairy Farms! 340 acres, barn for 66 milkers, 4 large silos with unloaders, pipeline, bulk tank, barn cleaner, 4 bedroom home, priced at $127,000. Includes crops. 100 cow free stall set-up, 4 silos, double 6 parlor, good 4 bedroom home, stocked and equipped. $300,000. We specialize in farms! Richard E. Posson, Lic. R.E. Broker, RD #3, Norwich, N.Y. 13815. 607/334-9727.

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HISTORICAL SHOWPLACE FARM, 196 acres keeping 70 horses. Elegant shuttered Colonial with 6 fireplaces. Plus 4 other residences. Fine barns. $250,000. 700 acres, 400 cow barn, five 30x60 silos. 3 homes, many outbuildings. $600,000. 540 acre beef farm, 400 tillable. Pole barn, 3 silos with unloaders. 3 bedroom ranch home plus tenant home. $200,000. Wimple, Realtors, Sloansville, N.Y. 12160. Phone 518/875-6355. Free lists, state wants.

REASONABLY PRICED operating dairy, 148 acres, 90 tilled, another 35 tillable, 57 stanchions, cleaner, bulk tank, silo, unloader, 65 head, good machinery, 8 room home in good condition, well located, $95,000. 365 acres, 100 tillable, 42 stanchions, silo, 39 milkers, 3 bedroom home, machinery, scenic view, $84,-000, $25,000 down. 950 acres, 375 tillable, 300 pasture, gravel pit, excellent 136 stanchion barn, silos, new milk house, 116 head, excellent machinery, 5 bedroom home, $220,000. Large beautiful Colonial home, 162 acres, mostly tillable, river frontage, 60 stanchions, 24x62 silo, 58 milkers, machinery, very good property in excellent location, $195,000, $56,-000 down. 183′ 74 tie barn, excellent condition, 85 head, machinery, 250 acres, 110 tillable, attractive 8 room home, $162,000, $60,-000 down. 180 acres, 165 tillable, stocked and equipped, 35 milkers, 3 bedrooms, needs some work, in operation, $65,000. 400 acres, over 200 tillable, 60 stanchions, nice 4 bedroom home, good land, trout brook, machinery, also ideal beef set-up, $77,000. Highly efficient operation in excellent condition-100 acres all tillable, steel 51 stanchion barn, new haybarn, new silo, unloader, trench on concrete, 50+ milkers, machinery, very nice home completely redone, $132,000. Several more. Brisson Real Estate, RD 2, Massena, N.Y. 13662, 315-769-9387 or 315-764-0896.

WESTERN NEW YORK: Free stall farm 288 acres owned, about 300 leased, 150 acres alfalfa, 300 acres corn, excellent buildings, stock, equipment, 3 houses; 2½ million lbs. milk shipped in 1972. Other free stall farms for sale. Conventional farms with herd averages of 15,000+ lbs. on 67 head; another of 16,000# on 80 head. Both gravel farms. For details call, write Lester N. Fuller, Broker, Riceville Rd., West Valley, New York 14171. Phone 716/942-6636.

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225 ACRE FARM in the heart of Honeoye region of Cayuga County. Nice Colonial house with 9 rooms, 1½ baths, 2-car attached garage. 140 free stalls, 30x60 and 26x60 silos. Located one mile from Poplar Ridge, New York.

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FARMS FOR SALE

168 ACRE DAIRY FARM - 12 year old barn with 34 ties, bulk tank, barn cleaner, two 16x40 silos with unloader. Attractive Colonial style farmhouse with 10 rooms, 2 baths. 150 tillable acres. Taxes $900 approx. Artesian well. $99,000. 500 acres, 400 excellent tillable soil; new 200 cow freestall barn; fine line of equipment; 2 good houses; 130 milkers, 30 bred heifers, other young stock to total 200 head - $425,000 good terms available. Petteys Agency, Ft. Ann, New York 12827. 518/793-2212, Home 518/632-5640 before 8:00 AM.

FARM 168A - 150 tillable. Remodeled two-family Colonial. 50 stanchions, two cement silos. Boston market. $90,000. James W. O'Connor, RD #1, Greenwich, N.Y. 12834. 518/638-8522.

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WIDOW MUST SELL outstanding 200 acre dairy farm, 110 tillable. 2 Early American homes. Barn w/bulk tank, cleaner; 2 silos; stream. 3 miles road frontage. $220,000. DiScala Realty, W. Oneonta, N.Y. 13861. 607/432-4106.

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BUYERS WAITING! For good dairy farms within 250 miles of New York City. Bare or stocked. We can finance. Also, interested in recreation land, timber or development land. Make your offer now! Our company also buys direct. Barmann's Realty Sales, Inc., R. D. #4, Middletown, New York. Phone 914-343-1108.

WANTED ALL KINDS OF FARMS, vacant land and timber lots. New York and Pennsylvania locations. W. W. Werts, Real Estate, Johnson City, New York 13790.

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WANTED: FARMS, ACREAGE in New England. Top price paid. Send details, price: H. Brower, 20 Wachusett Road, Chestnut Hill, Mass. 02167. Phone 617/969-3461.

DAIRY FARM LISTINGS wanted. We always need farm listings, especially free stalls. We are experienced in farm selling and will call on you. Call collect - Brandow Real Estate Corp., Stamford, N.Y. 12167. 607/652-3193 or 607/547-8218.

WANTED: 100 - 200 ACRES corn land, near Cortland, N.Y. Buildings unimportant. Box 369-EP, Ithaca, N.Y. 14850.

FARMS WANTED: New York State. We need listings on good clean farms for our many Fall buyers! Especially needed 50 - 150 cow free stall or conventional, bare or stocked and equipped. Call collect: Harold Hawley, Lic. R.E. Salesman, Weedsport, N.Y. 315/-834-3281 or Richard E. Posson, Lic. R.E. Broker, RD #3, Norwich, N.Y. 13815. 607/-334-9727. We specialize in farms!

WANTED - ALL KINDS of country properties priced to sell. Also, what have you for exchange? Write or phone, or see Paul N. Boughton, Realtor, 1½ Dolson Ave., Middletown, N.Y. 10940. Phone 914/343-2783.

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GINSENG GROWS TON ACRE, worth $35.00 pound. Details 25¢. Woods, Box 1079, Lebanon, Missouri 65536.

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MAN TO WORK on 140-cow dairy farm with freestall barn. Richard Skellie, Star Route, East Greenwich, N.Y. 12826. Phone 518/692-2548.

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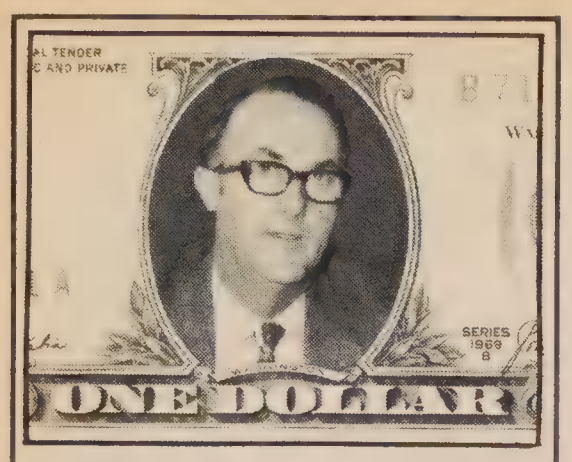


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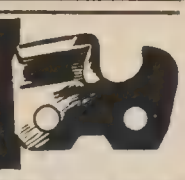
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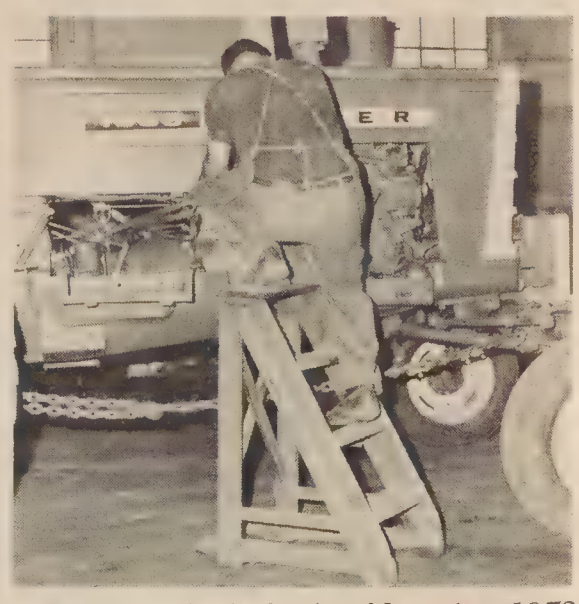
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Bead Breaker — The long handle makes it easy to break the bead in changing a tire. It puts considerable leverage on the tire and this can be varied by changing the bolt attaching it to the short post doing the breaking. The handle is bolted to a pair of angle irons making a post welded to the sheet-steel base which extends about halfway under the tire. The weight of the tire holds the base in position, eliminating the need to do some of the work with one's feet.



High Stepper — A short ramp of steps with bottom bracing is handier and more comfortable to work on than a ladder of similar height. It is especially useful when overhauling a tractor. It can be used close to the tractor and is less likely to tip over.



Pollution . . . . .

(Continued from page 19)

end up in surface runoff.

In either case, good economics favor reducing fertilizer loss. This will be particularly true this year as fertilizer supplies tighten and go up in price.

Dr. Shaw Reid, Cornell soil fertility specialist, notes that there'll be little nitrogen lost so long as you're fertilizing for top **profit** response, the level where your crop makes best use of available nitrogen. But put on more nitrogen than your crop can use, and the excess may be headed for the water supply. Reid and others at Cornell have studied this concept thoroughly, comparing nitrogen content of harvested plants with nitrogen available from fertilizer, manure and other sources. Cornell's nitrogen recommendations are based on this concept . . . top profit from your fertilizer dollar, without excess nitrogen for pollution.

And while you're figuring nitrogen rates, don't overlook the manure you put on. A ton of poultry manure has 15-20 pounds of N, a ton of cow manure has 5-10 pounds per ton. So a 20-ton-per-acre spreading rate adds substantial nitrogen to your crop, all in a handy slow release form that becomes available gradually through the season as your crop grows. In a year with tight nitrogen supplies, your manure is worth money and should be included in your fertilization plans.

Timing of nitrogen application is also a factor. Dr. Zwerman found heavy losses through leaching of fall-applied nitrogen, whether it went on wheat, corn or open ground. He monitored the nitrogen content of both runoff and groundwater coming from treated plots, to be sure the nitrogen was actually leaving by these routes. And sure enough, some was. Nitrogen losses varied widely, ranging from 0 to 100 percent, depending on the amount of rainfall and condition of the soil when heavy rains occurred. Losses averaged about 50 percent, and much of this could be traced in water leaving the field over the top or in the groundwater.

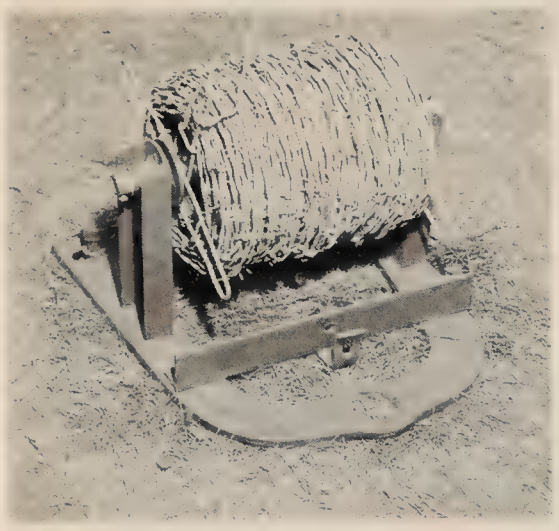
Even nitrogen applied in early spring showed surprising losses if heavy rains followed. The least nitrogen was lost (and most used by crop plants) when application was just before or at the time of crop use.

Less pollution and more production will be tough to reconcile in agriculture, as in other businesses. But we're entering a new area, with vocal groups shouting out against all forms of pollution. We must all pay attention, or we'll be forced to hear. And the more we can get our own shops in order, the less trouble we're likely to have.

Meanwhile, farmers and farm groups should study proposed legislation in this critical area, whether it is at town, county, state or federal levels. You may not be able to hold off such laws, but by speaking up you may be able to keep the regulations practical and within reason.



Lucky Holder – The mailbox is mounted on this welded support made mostly from discarded horseshoes and pipe. Spacers of expanded metal are attached between the pipe posts. The box is on a shelf framed with angle iron and braced with a rod underneath. The owner's name is mounted on a metal plate suspended from an overhead arm.



Sidewinder – This barbed-wire uncoiler is mounted on the tractor. The coil of wire slips over a removable pipe, mounted on a pair of channel iron posts, in bearings of short telescoping pipe with a separating flange to keep the wire from hooking. The uncoiler fits on the tractor drawbar.



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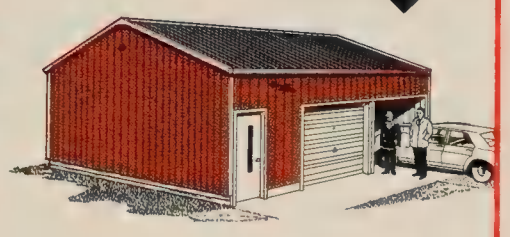
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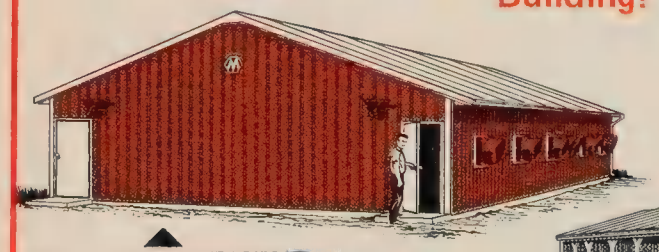
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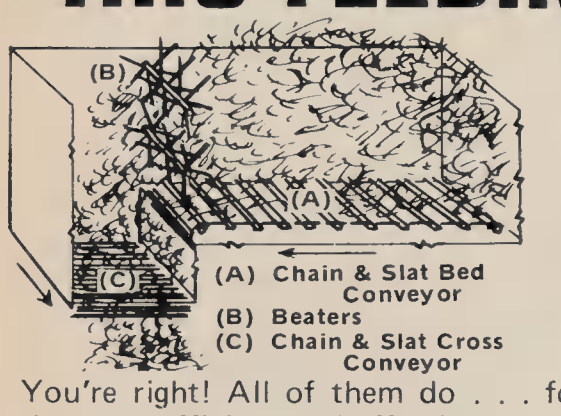
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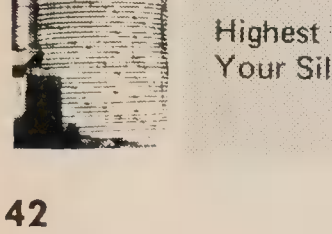
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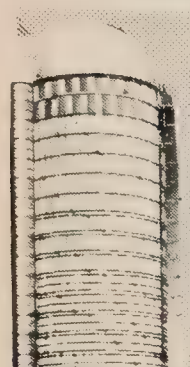
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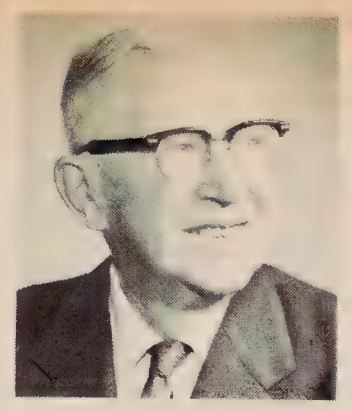
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by Amos Kirby
New Jersey Editor

Looking ahead

THIS business of writing about farming in view of the 1973 peak prices is exciting and challenging. Such prices as $5 per bushel for wheat, $12 soybeans, $400 a ton for soybean meal and $3 corn have been almost unbelievable. One might also add pork at $60 per hundredweight and $55 beef.

These prices are not realistic in terms of cycles in production over a period of years. There are certain considerations in the present food-price situation that anyone planning on farming in 1974 and later should think about:

1. A world demand for more food . . . and the higher-cost kinds of food that most Americans have been enjoying for a long time . . . suddenly overtook the supply on American farms. Furthermore, this world demand was **effective** demand from people **able to pay** for food.

2. The sudden appearance of demands from Russia, China and much of western Europe in our domestic markets forced prices up and up. For the first time in memory (or maybe in history) these people in other countries were competing in our markets for the goodies that had long been common on the affluent American table.

3. Crop failures and unusually small harvests in other parts of the world forced people there to come to this country for food.

One cannot expect the July-August prices in 1973 to apply to the 1974 crop year. Neither can one expect to see prices next year decline to the "target" levels in the new federal price-support law.

Now that the public has come to realize that food has moved from a local to an **international** market, farmers should not expect farm prices next year to drop to the 1972 level. As long as the Japanese are willing to pay $10 to $14 a pound for beef on the American market, meat prices will not return to $30 per hundred in the Midwest. For the first time in the last 20 years, farmers have the opportunity to base production on a price level that will reflect costs plus a reasonable profit.

Take white potatoes as an illustration. Somewhere between the $2 per hundredweight (all too common in past years) and the $8 that prevailed this past summer, there is a level that represents production costs and a profit. Similar comparisons can apply to about everything that goes into the consumer market basket.

COSTS AND SPREADS

When comparing farm prices and supermarket prices, I am appalled at the spread. Those potatoes with an on-farm value of $8 per hundredweight retail at 22 cents per pound. I know nothing about what is involved in the 14-cent distribution cost, but in this example it costs more to distribute a potato than it does to grow it. One can apply the same yardstick to other fresh and processed foods.

After interviews with efficient potato and vegetable growers, I'm convinced that . . . with lighter potato yields and production costs at the higher end of the range . . . potatoes at 8 cents per pound represent

(Continued on page 43)

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Star agribusinessman

Only four outstanding FFA members are named as Regional Star Agribusinessmen in the United States each year. In 1973, one of these is from the Northeast . . . Lloyd E. Lamb of Springville, New York.

He is an employee at the Lamb and Webster Implement Company where he plans eventually to become a partner in the business. The son of Mr. and Mrs. Lloyd L. Lamb, the Star Agribusinessman was a student at Griffith Institute and Central School. Later, he attended Bryant and Stratton Institute where he studied marketing and business administration, receiving an associate degree with high distinction.

Lloyd cites his high school agribusiness courses in agricultural mechanics, and other subjects under vocational agriculture instructor Charles Couture, as being extremely helpful in preparing him to take on a larger role in the implement business. He also attended numerous International Harvester training schools where he learned to assemble and repair lawn and garden equipment as well as how to work on complex hydraulic systems and other parts of agriculture and industrial machinery.

Since his graduation from college, Lloyd has concentrated his work experience on the parts and sales end of the business. "This is the best place to meet customers," he says. "I believe it is the most challenging too, because you have to be aware of customer needs and desires as well as new company policies."

Mobile housing

Mobile homes occupied year-round in New York State increased 113 percent during the decade between the 1960 and 1970 Census years. According to the latest in a series of "Facts on Mobile Homes," the number jumped from 31,188 units in 1960 to 66,523 in 1970. The eight-page report summarizes 1970 Census data on mobile homes for all counties, towns, villages and cities (except New York City) in the state.

Other fact sheets in the series are: Mobile Homes in the Housing Market; Park and Occupant Characteristics; Assessment and Taxing Practices; Financing; Municipal Regulations and Controls; and a Mobile Home Bibliography, listing books available on the subject.

Copies may be obtained without charge by writing to Richard A. Wiebe, Director, State Office of Planning Services, 488 Broadway, Albany, New York 12207.

Kirby . . . . .

(Continued from page 42)

only a reasonable profit. When the potato market at the grower level goes down, the retail price generally shows little decline.

WATERGATE

In the minds of the consuming public, the rise in food prices has been of far greater concern than Watergate, although the latter has had much more media space. Watergate will in time become history, but food is, was, and will be an everyday "must."

As food prices have risen, and some shortages developed, there has been some panic buying. For instance, during June and July the U. S. public purchased more than 500,000 home freezers, the largest number for any two-month period in history. The September weakness in meat prices was partly due to eating from the freezer.

MECHANIZATION

If there is any substantial shift in production in the foreseeable future, it will be toward those crops that can be grown and harvested mechanically.

I have seen this trend in the cornfields of Illinois and Iowa . . . in soybeans, wherever grown . . . in the tomato fields and vineyards of California . . . as well as in the processing-tomato fields of South Jersey.

During a trip to Illinois a few years ago, I was amazed to find two men growing more than 900 acres of corn. Today, we have in New Jersey a two-man unit growing 1,000 acres of barley, wheat, corn and soybeans.

PLANNING AHEAD

Farmers are being asked to increase production. The USDA calls for all-out farm production. That's fine, but how is a grower today or next March able to determine what the consumer is going to want?

There is a considerable gap in the timetable between planting or planning time and what will be in demand one year from the time this appears in print. It requires at least six months from hatched egg to marketable broiler . . . and 20 weeks from incubator to laying cage. It requires 12 to 24 months from dropped calf to a steak in the market.

Compare this with the consumer, who shops on the average of once a week, and some shop every day. If the consumer could tell his market manager exactly what he will want on October 1, 1974, then the grower could better plan ahead!

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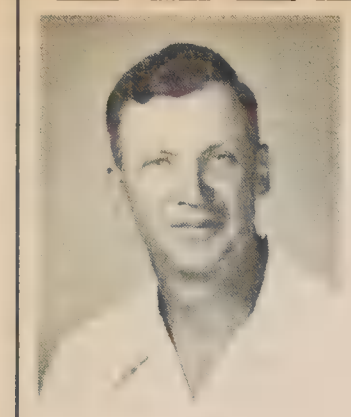
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Farm News, Notes and Nonsense

by Harold Hawley,
Weedsport, New York

LABEL, LABEL, WHO'S GOT THE LABEL?

The more we see of the rules about labeling, the sillier some of them seem. Sure, we will pretty much all agree that the consumer may want to know whether it's real juice or artificially flavored. Have you met anyone who read or cared beyond that point?

Is it really significant that an ounce or a serving will supply one with x-percent of the minimum daily requirement of this or that vitamin or mineral? Weren't we long ago reassured of this point – that with any kind of a normal diet with the variety of foods available to most everyone, we could all get enough of all the known needed ingredients?

Worse than that, a blind man can see that most of us get an overdose of calories!

My point is that all these regulations on labeling become an added cost to the food industry and therefore to the consumer. The value to the consumer is pretty hard to identify, but she will have to pay for the service whether she uses it or not, or whether she does or does not prefer to have it.

Choices

Maybe if we are to be saddled with this kind of nonsense we can direct it to some good. Since becoming a purchaser of milk, instead of a producer, we have had a choice of several kinds of dairy products to drink – whole milk, skim milk and, of course, a low-fat product with solids-not fat added. For us, the latter product is so far ahead of the whole or skim milk that it isn't even close.

Years ago, we thought the wonderful flavor of milk was tied to its fat content. Much later, we heard a California dairyman say that once a consumer had tried a low-fat, high-protein (extra solids) product, he couldn't sell her whole milk again. That's where we are at our house. Whole milk is a very poor second choice.

So back to labeling. The butterfat and protein content are what most people are concerned about. Low-fat, for obvious reasons, is the preference . . . and high solids for the great flavor they give and for the step-up they provide in protein content.

Protein

This protein being so desirable has economic value to the consumer and hence should be one of the criteria in the pricing of milk to the producer as well as to the consumer and all the way in between. For years, some have advocated pricing milk on both its butterfat and its protein content, but it's been mostly talk and little action. Yet it has been tried successfully enough to warrant widespread serious consideration.

Even before Mississippi Valley milk producers tried the system this year it had been used enough to suggest that it was a practical way to encourage and reward farmers to produce what was most desired . . . a high-protein milk . . . without putting all the emphasis and premium on that which, generally speaking, is not wanted . . . butterfat.

I trust we have mostly progressed beyond the point where we were hung up on that old slogan that "milk is the perfect food." Let's forget that old nonsense and recognize and capitalize on the fact that good as it is, milk can be improved. The best way yet seems to be to reduce its fat and increase its solids and thereby not only improve its flavor but make it more acceptable and valuable to most people.

Just possibly, if we are smart enough, we can help the industry by using the labeling requirements (foolish though they may be) to encourage the acceptance of the improved product now available. Hopefully pricing at the farm on the basis of the economic worth of the components would be the next step.

LOOK MA – NO EARS!

Following a recent comment we made about the financial difficulty of the railroads, in which we listed several of what seemed to be the basic causes, we got our ears pinned back pretty hard by a retired locomotive engineer. The only reason for reciting some of his comments is to give some exposure to a different point of view, even if I disagree with it.

First off, although I listed the real estate tax policies of the units of government, the unresponsiveness of the ICC to needed rate increases, and labor policies as all being contributory to the problem, the man who so strenuously disagreed with me mentioned only the charge made about featherbedding.

In the 28 years he worked on the railroad he knew no one who was in the category of featherbedder. Rather, he suggested that to find featherbedding "one must look to the finance people interested only in margins, mergers, interest, etc. None of them really produces anything, they serve nobody but themselves, and have just about succeeded in crushing all hope and incentive for the small farmer, businessman or service-connected worker such as I was. None of the crews I worked with for over 28 years ever received such special bonuses as the farmers get in price supports, tax loopholes, lime and fertilizer grants and write-offs.

"It seems to be an ever-increasing American tragedy to point to labor and make it the whipping boy. There are so-called goldbricks in any occupation and particularly in yours. The conversion of steam to diesel power can be compared to the horse and tractor. Would that make the farmer a featherbedder? After all, with diesels our work load was increased from about 3,500 tons to as much as 12,000 tons with the same size crew in about four-fifths of the time. And the rates to the consumer did increase rather than decrease. Where did all the money go? Where?"

I'm not sure where to begin trying to bridge the gap between his point of view and mine. Maybe it can't be done. It cannot be denied that all of us hear and believe what we want to as it fits our needs and suits our prejudices. However, some things seem obvious, regardless of point of view on these issues. Depending on whether we are part of the labor force, the management team, or from whatever segment of society, we receive a vastly different assortment of "facts and propaganda."

Featherbedding, to me at least, involves keeping more people on the job than needed. Anyone who has been a railroad engineer should be the first to recognize that a full crew in each of several diesel locomotives on a train is a pretty costly and unnecessary requirement. Insistence on this constitutes what I mean by featherbedding.

To carry the analogy into agriculture, it would be as though we had kept the same or similar labor force on our farms when we switched from horse to tractor, or from early tractors to the present marvelous outfits. Even as production continues to mount, the labor force in agriculture continues to decline and productivity per man increases year by year . . . which is in rather sharp contrast to the results of "full crew contracts."

It seems unnecessary to comment on "finance people," who I assume are what we commonly term the "management group." Granted, there has been some mismanagement in most every line of endeavor, including farming. In spite of human error or even an occasional case of dishonesty, does anyone really think that "none of them really produces anything?" Or that any business of whatever size could be run without someone calling the shots?

To interject my own peculiar brand of prejudice, it has seemed to me that failure has all too frequently followed when employees have been granted too much control over management decisions. Certainly employees should have the opportunity to make suggestions and express themselves about their needs and points of view but the management had better retain its right and ability to make the decisions. One quarterback per team, if you please.

When labor unions have become so powerful as to dictate the terms and conditions of employment, regardless of the financial situation of the employer, disaster is just a matter of time. It is just as true on a two-man farm where fear of losing his only help causes a farmer to agree to more than he can afford, or acquiesce to suggestions about purchasing equipment to keep the help happy. Only the boss knows how much he can afford and he'd better keep himself free to be the sole maker of these decisions.

At the risk of straying too far afield and arousing the ire of yet another group, the same philosophy should apply to our educational process. With the emergence of a strong union movement in the teaching profession – one with enough political clout to get legislative enactment of new ground rules – we are seeing and, in my opinion, will continue to see a decline in the quality of the education available to our kids.

Why do I say this? Because with greater bargaining power on the part of the teachers, a disproportionately large share of any increases in state aid to local districts goes for salaries, at the expense of some of the other needed items. Likewise, retirement and other fringe benefits bring about costly inflexibilities in the system. Next step is a budget defeat or a call for statewide financing of the educational effort. Anyone who seriously thinks that either or both of these will not reduce the amount of local control or reduce the quality of education should take another look.

Meanwhile, back at the railroad, I have no argument with my friend who says the crews with whom he worked never received such special bonuses as price supports and lime and fertilizer grants. I never liked them either. As far as the tax loopholes and write-offs for farmers, maybe he knows something that I don't!

SECOND-GUESSING

This June we had occasion to travel across the Midwest and thought we never saw conditions so adverse. Wet weather, late planting and lack of sunshine all made the prospects poor. The first of September we had another look at it. We've not seen what we thought were such poor prospects across Indiana, Ohio and eastern Illinois in the last 35 years we've lived in or traveled through those states.

Granted, acreage has been stepped up, but we just have to wonder where the yields are coming from. There was poor color, late maturity, stunted growth, complete loss in some low spots, plus the poorest job of weed control we've seen in years. Well, to a roadside expert this raises some questions.

For years we took a vacation in late August – after oat harvest and before wheat planting. Many times we left central New York figuring that a good corn crop was in prospect. Then we'd see those large yields of uniform stands of deep green corn, well-eared and more mature than ours, and we'd become quite modest about our own corn.

This year, the reverse was all too true. Corn around here was wonderful – well-eared, dark and beautiful – whereas across the area mentioned it mostly looked like something else. Well, by the time this "reaches the streets," the harvest will be well along and we will find out whether one can trust his eyeball appraisal of the situation.

American Agriculturist, November, 1973

READER SERVICE



READER SERVICE CLAIMS SETTLED

NEW YORK

Mr. Leo McAndrews, Andover
Claim settled $144.13
Mrs. Arthur Maynard, Berkshire
Refund on order 17.04
Mr. H. M. Edie, Cambridge
Refund on shoes 13.50
Mrs. Esther Swarts, Naples
Refund on dress 9.69
Mrs. Hope Marston, Black River
Refund on records 11.90
Ms. Josephine Haupt, Corinth
Refund on flowers 9.55

PENNSYLVANIA

Mrs. Clair Jaquith, Columbus
Refund on subscription 6.00
Mrs. Wilmer Reichard, Bloomsburg
Refund on seeds 18.35

MARYLAND

Mr. Maurice Meunier, Taneytown
Refund on order 19.20

MAINE

Ms. Viola Hallowell, Mars Hill
Refund on order 69.50

VERMONT

Mr. Thomas Parnowski, Island Pond
Refund on plants 4.95
Mr. Cyril Hodgeman Jr., Reading
Refund of fee 6.00

DELAWARE

Mrs. Dorothy Thornton, Hartly
Refund on film 29.98

COAST TO COAST

Pacific Service Company, a subscription agency formerly operating in Seattle, Washington, has been taken over by Library Marketing Service, P. O. Box 5726, Orlando, Florida 32805.

The Attorney General in Seattle has been assured that outstanding complaints will be adjusted in the near future. Any subscriber who has not already reported his complaint to the Seattle BBB should send full details to the Orlando firm.

HONG KONG TAILORS

With climbing consumer prices, there appears to be an upswing in solicitations by transients of orders for custom-tailored clothing for men and women.

Leading the pack are the so-called Hong Kong tailors. A display advertisement appears in a local paper. Readers are urged to call for an appointment with a master tailor who will be at a nearby motel on a certain date. A local telephone number is given, along with an address such as a Post Office box number in Virginia or Kentucky.

One subscriber was pleased with a trial purchase. The next time Elegant Fashions of Hong Kong came around, he placed a second order. Although satisfaction was guaranteed, he has been unable to get the fit properly adjusted or a refund of his money.

Another subscriber paid Mella Hong Kong Tailors for a beaded sweater and gloves, including $5.00 for postage to insure prompt delivery. When the items did not arrive, she appealed to READER SERVICE. We wrote to the two addresses she gave us. Both letters were returned marked "Moved, left no address." When our reader contacted the motel manager, she was told that many others were in the same boat.

These are only two of the many reports we have received of similar experiences involving either non-delivery or dissatisfaction with quality and/or workmanship.

There is not much that can be done when such outfits simply pull up stakes and move elsewhere. Perhaps they should more appropriately be referred to as "Hong Kong phantoms."

MINUS PROFITS

Many a retired person, living on a small income, feels a need to earn additional money. Such people are prime targets for the home mail-order business promoter who promises fabulous profits to those who will invest a few hundred dollars.

The plan sounds promising. Surely orders will come flowing in if one mails out a thousand attractive catalogs, supplied at a cost of about $150. The participant is discouraged from developing his own mailing list. A "tested current list" is available for $30. Postage will cost $80, and a rubber stamp about $5. Merchandise will be drop-shipped by the promoter, using labels indicating that the participant is the shipper.

Once the catalogs are in the mail, it is merely a matter of waiting for orders – and waiting – and waiting. One subscriber received four, realizing a total return of $5.37 on a $265 investment. According to one authority, people involved in such plans usually do not make enough to pay for the postage on the catalogs.

It takes time and know-how to develop a successful mail-order business, especially in days of "tight" money. One of the oldest in the business – Breck's of Boston – went bankrupt a few months ago.

SECOND TIME AROUND

About a year ago, a subscriber wrote us about $100 due her in connection with a referral given to National Building Company Inc. of Buffalo. She gave the company the name of a friend who did buy and pay for a garage.

After writing twice with no reply, we checked with the Better Business Bureau of Western New York. We were told that the company was no longer operating in Buffalo.

The same subscriber recently received a form letter from National Garages, 3343 Harlem Road, Buffalo. Her suspicions were aroused when a color television was offered for any referral resulting in the sale of a garage "similar to the one you purchased." On checking, we learned that National Garages was established in May 1973, and that the principal formerly operated National Building Company.

It takes real nerve to solicit referrals from someone to whom you still owe money as the result of an earlier referral!

It's A Fact

11,400,000 people injured last year.
117,000 people killed by accidents.

Motor vehicle accidents - 56,300 killed
2 million disabled

Home accidents - 27,000 killed
4.2 million disabled

* * * *

Heart trouble is responsible for 60% of all deaths. Cancer will strike one person in four.

* * * *

One person in seven will be hospitalized this year with an average cost per stay of $913.04.

* * * *

Let North American help protect you against the soaring cost of accidents and sickness.

BENEFITS PAID

A friend's name may be in this list.

Gertrude May, Herkimer, N.Y. **$1175.00**
Fell down stairs—broke arm
Allan St. Louis, Carthage, N.Y. **837.05**
Slipped on wet floor—inj. back
Virginia Virkler, Castorland, N.Y. ... **1302.85**
Slipped on pad of butter—broke hip
Norman Fuess, Madison, N.Y. **1045.75**
Loading trailer—broke leg
Terry Rothfuss, Fairport, N.Y. **507.88**
Slipped off wagon—cut toes
Geraldine Nellis, Fort Plain, N.Y. **952.20**
Auto accident—inj. back
Elizabeth Hobart, Barker, N.Y. **131.42**
Hit by horse—inj. knee
John Luchsinger, Boonville, N.Y. **343.29**
Slipped on log—inj. shoulder
Harvey Skeele, Fabius, N.Y. **2299.27**
Slid into base—broke ankle
Joann Tange, Victor, N.Y. **148.00**
Hit by ladder—broke teeth
John Sosler, Sr., Campbell Hall, N.Y. **205.70**
Hit by ensilage cart—broke foot
Edna Phelps, Pulaski, N.Y. **122.36**
Slicing tomatoes—cut finger

Milford Kinsman, Troy, Pa. ..... **$ 748.20**
Playing football—inj. knee
Charlotte Niemeyer, Wattsburg, Pa. **448.59**
Stabbed by pitch fork—inj. foot
Warren Keim, Jr., Millport, Pa. **1026.10**
Stepped from ladder—inj. knee
Ralph Osmun, Columbia, N.J. **646.43**
Caught glove on belt—inj. hand
N. Paul Forman, Englishtown, N.J. **386.64**
Kicked by horse—injured shoulder
Alexander Urgiel, Turner Falls, Mass. **306.26**
Caught in lawn mower—cut hand
William Denton, Wolcott, Vt. **1248.57**
Carrying timber, fell—inj. knee
Marvin C. Peck, Andover, N.Y. **140.28**
Stone fell—inj. foot
Jeffrey Zimmer, Maine, N.Y. **205.00**
Fell off bicycle—broke collarbone
Edward Zilker, Delevan, N.Y. **523.03**
Kicked by cow—inj. leg
Duane Leonard, Freedom, N.Y. **1159.86**
Fell into silo—broke back
Russell Scott, Moravia, N.Y. **1020.81**
Trash fire exploded—severe burns

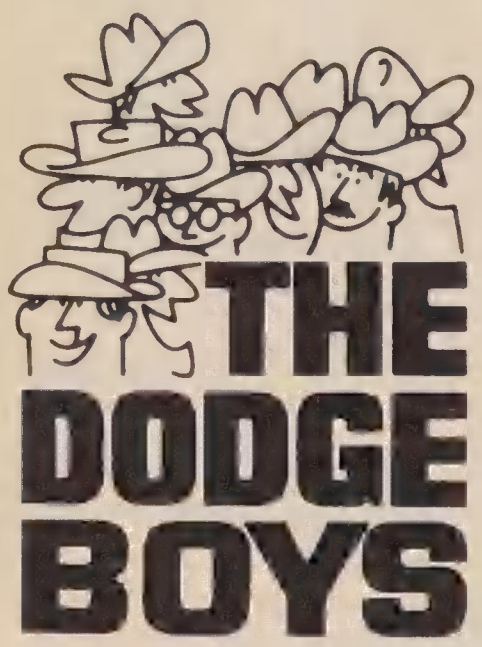
Several openings now available for position of field representative. Guaranteed income, exclusive territory, training program, life time career in sales and service, advancement opportunities, average income of present representatives is $15,000 plus.
Inquire P. O.Box 100, Ithaca, N.Y. 14850

Leo Johnson, Jr., W. Edmeston, N.Y. **452.85**
Fell from tractor—injured leg
Merlyn Knowlton, Rossie, N.Y. **468.99**
Truck accident—inj. arm, leg
Gerald Guernsey, Cobleskill, N.Y. ... **1805.70**
Stepped on nail—inj. foot
Lawrence Church, Watkins Glen, N.Y. **587.68**
Auto accident—chest injury
Norman Scott Buisch, Waterloo, N.Y. **340.14**
Hit low cellarway—inj. neck
Mary Saxton, Cohocton, N.Y. **631.66**
Hit by cow—injured leg
Stanley Zaweski, Jamesport, N.Y. **275.25**
Fell off pick-up—inj. back
William Cragg, Cohocton, N.Y. **214.25**
Tractor flipped over—inj. side
Eric Anderson, Owego, N.Y. **233.04**
Auto accident—head injury
Kenneth Katzenstein, Ithaca, N.Y. **135.22**
Tripped on stairs—inj. ankle
Ernest VanGee, Walworth, N.Y. **431.40**
Caught in pulley—broke finger
Elizabeth Olsowsky, Perry, N.Y. **1396.07**
Slipped on milk—broke leg

Margaret Stevens, Clymer, N.Y. **273.00**
Tripped on rug—inj. knee
Milton Smith, Sherman, N.Y. **892.88**
Repairing fence—cut by barbed wire
Sharon Segar, Horseheads, N.Y. **1495.00**
Auto accident—broke arm
Milton Wade, Oxford, N.Y. **1433.56**
Cow fell—inj. knee
Elden Upton, Mooers, N.Y. **396.19**
Bitten by rabid cow
Carl Fisher, Homer, N.Y. **194.28**
Motorcycle acc.—broke wrist
Mary Hillis, Davenport, N.Y. **330.00**
Tripped over feed bag—head injury
Van Peters, Hancock, N.Y. **419.45**
Chain saw slipped—cut face
Harold Rockwood, Boston, N.Y. **876.94**
Screwdriver slipped—broke thumb
Lloyd White, North Bangor, N.Y. **1796.32**
Kicked by cow—internal injuries
James Cummings, Akron, N.Y. **278.56**
Slipped from truck—inj. shoulder
Henry Pelletier, Herkimer, N.Y. **1495.00**
Slipped pulling wheel on car—inj. knee

Keep Your Policies Renewed

NORTH AMERICAN ACCIDENT INSURANCE COMPANY
(In New York State)
NORTH AMERICAN COMPANY
FOR LIFE AND HEALTH INSURANCE (In Other States)
GENERAL OFFICES: CHICAGO, ILLINOIS
SAVINGS BANK BUILDING ITHACA, NEW YORK



ALBANY COUNTY

Albany Dodge, Inc.
770 Central Ave.
Albany, N.Y.

Newell Bros., Inc.
169-171 Ontario St.
Cohoes, N.Y.

ALLEGANY COUNTY

Pfuntner Sales & Service, Inc.
120 Railroad Ave.
Wellsville, N.Y.

BROOME COUNTY

Miller Motor Car Corp.
4455 Vestal Parkway E.
Binghamton, N.Y.

Deposit Motor Sales, Inc.
62 Second St.
Deposit, N.Y.

CATTARAUGUS COUNTY

Knight's Service Garage
8 Main St.
Franklinville, N.Y.

A. L. Sibley Motors, Inc.
520 Rock City St.
Little Valley, N.Y.

Paul Brown Motors, Inc.
1145 E. State St.
Olean, N.Y.

Kronz's Garage, Inc.
Main St.
Perrysburg, N.Y.

Randolph Motors, Inc.
91 Jamestown St.
Randolph, N.Y.

Little Valley Auto Sales, Inc.
Route 353
Salamanca, N.Y.

CAYUGA COUNTY

Ryerson Dodge, Inc.
Grand Ave.
Auburn, N.Y.

James E. Ryerson, Inc.
55 Main St.
Moravia, N.Y.

CHAUTAUQUA COUNTY

Farrell Chrysler-Plymouth, Inc.
258 W. Main St.
Fredonia, N.Y.

Cusimano Bros. Garage, Inc.
616 Buffalo St.
Jamestown, N.Y.

Damon Motors, Inc.
120 Central Ave.
Silver Creek, N.Y.

Westfield Dodge City, Inc.
East Main St.
Westfield, N.Y.

CHEMUNG COUNTY

Elmira Dodge, Inc.
251-253 Baldwin St.
Elmira, N.Y.

CHENANGO COUNTY

Nearing Dodge, Inc.
Hale Street Ext.
Norwich, N.Y.

CLINTON COUNTY

Ausable Motor Sales, Inc.
Main St.
Ausable Forks, N.Y.

E. S. Mason, Inc.
Upper Cornelia St.
Plattsburgh, N.Y.

COLUMBIA COUNTY

Chatham Motor Company, Inc.
17 Austerlitz St.
Chatham, N.Y.

Village Dodge, Inc.
98 Green St.
Hudson, N.Y.

DELAWARE COUNTY

Delhi Motor Co., Inc.
4 Meredith St.
Delhi, N.Y.

Craft Motor Co., Inc.
Main St.
Margaretville, N.Y.

Fendick Chrysler-Plymouth, Inc.
27 Smith St.
Sidney, N.Y.

K. Rappleyea Chrysler-Plymouth
Beaver & Main St.
Stamford, N.Y.

Buteau's Dodge Sales
60-62 Delaware Ave.
Walton, N.Y.

ERIE COUNTY

Crest Dodge, Inc.
1510 Orchard Park Rd.
Buffalo, N.Y.

James F. Shaw Co.
Olean Rd.
Chaffee, N.Y.

Mid-City Dodge, Inc.
2185 Walden Ave.
Cheektowaga, N.Y.

Smith Bros. Dodge, Inc.
10085 Main St.
Clarence, N.Y.

Aurora Dodge, Inc.
6800 Seneca St.
Elma, N.Y.

Fairway Dodge Sales, Inc.
395 Buffalo St.
Hamburg, N.Y.

Pioneer Dodge, Inc.
3445 Delaware Ave.
Kenmore, N.Y.

DeLacy Motors, Inc.
5229 Broadway
Lancaster, N.Y.

Bob Johnson Motors
195 W. Main St.
Springville, N.Y.

Transitowne Dodge, Inc.
7408 Transit Road
Williamsville, N.Y.

ESSEX COUNTY

Vincent S. Jerry & Sons, Inc.
South Main St.
Crown Point, N.Y.

Adirondack Auto Service
Route #9
Elizabethtown, N.Y.

FRANKLIN COUNTY

S & S Auto Sales, Inc.
W. Main St. Rd.
Malone, N.Y.

Lakeside Garage
111 River St.
Saranac Lake, N.Y.

FULTON COUNTY

H & P Motors, Inc.
65-67 South Main St.
Gloversville, N.Y.

Howell & Pierson, Inc.
224-226 W. Main St.
Johnstown, N.Y.

GENESEE COUNTY

Greco Sales & Service, Inc.
Route 20
Darien Center, N.Y.

LeRoy Chrysler-Plymouth, Inc.
7133 West Main St.
LeRoy, N. Y.

Zigrossi Motors
109-111 Main St.
Oakfield, N.Y.

HAMILTON COUNTY

Day's Garage
Rt. 30, North
Long Lake, N.Y.

HERKIMER COUNTY

Paul Newman Motor Sales, Inc.
163-165 South Main St.
Dolgeville, N.Y.

Holt Bros., Inc.
94-100 W. Main St.
Mohawk, N.Y.

JEFFERSON COUNTY

Fulkerson Motors
Route #11
Adams, N.Y.

Carthage Dodge, Inc.
320 N. School St.
Carthage, N.Y.

Bickelhaupt's Garage
211-213 Main St.
Theresa, N.Y.

Lathan's, Inc.
Outer Washington St. Rd.
Watertown, N.Y.

LEWIS COUNTY

Donaldson Dodge
Croghan, N.Y.

LIVINGSTON COUNTY

Frank Piraino, Inc.
110 W. Main St.
Avon, N.Y.

Lent Dodge, Inc.
8 Ossian St.
Dansville, N.Y.

Schiano Chrysler-Plymouth, Inc.
84 Avon Road
Geneseo, N.Y.

MADISON COUNTY

Madison Dodge, Inc.
Main St.
Madison, N.Y.

A. F. Ryan & Sons, Inc.
192 Madison St.
Oneida, N.Y.

MONROE COUNTY

Barry Dodge
4579 S. Main St.
Brockport, N.Y.

Greece Dodge City, Inc.
4477 Ridge Road, West
Greece, N.Y.

Culver Dodge, Inc.
1733 Ridge Road, East
Rochester, N.Y.

McEvoy Dodge, Inc.
2400 W. Henrietta Rd.
Rochester, N.Y.

Weller Motors, Inc.
Stutson St. & Thomas Ave.
Rochester, N.Y.

Gray-Raycheff, Inc.
69 Rochester St.
Scottsville, N.Y.

Ross Motors Webster Corp.
943 Ridge Road
Webster, N.Y.

MONTGOMERY COUNTY

Valley Dodge, Inc.
24 River St.
Amsterdam, N.Y.

MacLauchlin Auto Sales, Inc.
10 West Main St.
St. Johnsville, N.Y.

NIAGARA COUNTY

Schmid Motors, Inc.
5869 South Transit Rd.
Lockport, N.Y.

Falls Dodge, Inc.
2380 Military Rd.
Niagara Falls, N.Y.

ONEIDA COUNTY

Zeigler's Motor Sales, Inc.
202 Ford Ave.
Boonville, N.Y.

Crist Motors
14-18 Main St.
Camden, N.Y.

Clinton Chrysler-Plymouth, Inc.
12 Franklin Ave.
Clinton, N.Y.

A. J. Ryan Motors, Inc.
601 W. Dominick St.
Rome, N.Y.

Dodge City of Utica, Inc.
Truck Route 5A
Yorkville, N.Y.

ONONDAGA COUNTY

Donoghue Dodge Corp.
Rt. 11 & Pine Grove Rd.
Cicero, N.Y.

Val's Motors, Inc.
756 State Fair Blvd.
Lakeland, N.Y.

A. F. Ryan & Sons, Inc.
102-106 E. Seneca St.
Manlius, N.Y.

Sam Dell's Dodge Corp.
1011 W. Genesee St.
Syracuse, N.Y.

ONTARIO COUNTY

Finger Lakes Motors, Inc.
2555 Rochester Rd.
Canandaigua, N.Y.

Geneva Automobile Company, Inc.
145 Castle St.
Geneva, N.Y.

ORLEANS COUNTY

Engle-Harrison Motor Co., Inc.
13936 Route 31W
Albion, N.Y.

McMurray Motors, Inc.
1405 Transit Rd., South
Medina, N.Y.

OSWEGO COUNTY

Longley Bros.
East River Rd., South
Fulton, N.Y.

Leon Shapiro Motor Sales, Inc.
410 West First St.
Oswego, N.Y.

Dick Goslin, Inc.
Route 11, North
Pulaski, N.Y.

OTSEGO COUNTY

Mohawk Chrysler Plymouth, Inc.
U.S. 28, Chestnut St., South
Cooperstown, N.Y.

Burr's Dodge, Inc.
Chestnut St.
Oneonta, N.Y.

Frank Patterson & Sons
Main St.
Richfield Springs, N.Y.

RENSSELAER COUNTY

Ken Goewey Dodge, Inc.
360 Fifth Ave.
Troy, N.Y.

ST. LAWRENCE COUNTY

Brown's Dodge, Inc.
Russell Road
Canton, N.Y.

Gouverneur Motor Sales, Inc.
385-387 E. Main St.
Gouverneur, N.Y.

North Country Dodge, Inc.
E. Orvis St.
Massena, N.Y.

Harold L. McAdam
R.D. Heuvelton Rd.
Ogdensburg, N.Y.

Clarence J. Russell
837 State St.
Ogdensburg, N.Y.

Blevins Motors
Route #4
Potsdam, N.Y.

SARATOGA COUNTY

Ed Shepherd Dodge, Inc.
U.S. Route 9 at Exit 13 off Northway
Malta, N.Y.

SCHENECTADY COUNTY

Wedekind Motors, Inc.
1595 State St.
Schenectady, N.Y.

Scotia Motors, Inc.
110 Mohawk Ave.
Scotia, N.Y.

SCHOHARIE COUNTY

Head Sales & Service
Route 145
Lawyersville, N.Y.

SCHUYLER COUNTY

Learn Motor Company, Inc.
502 N. Franklin St.
Watkins Glen, N.Y.

SENECA COUNTY

Starr Shaw Sales, Inc.
364 E. Main St.
Waterloo, N.Y.

STEUBEN COUNTY

Warren Stiker
E. Front St.
Addison, N.Y.

Scudder Motor Co.
8524 Main St.
Campbell, N.Y.

Maple City Dodge, Inc.
76 Seneca St.
Hornell, N.Y.

TIOGA COUNTY

Tioga Motors, Inc.
Upper Fifth Ave.
Oswego, N.Y.

TOMPKINS COUNTY

William T. Pritchard, Inc.
304-306 S. Cayuga St.
Ithaca, N.Y.

WARREN COUNTY

Ford Garage Company, Inc.
109 Warren St.
Glens Falls, N.Y.

WASHINGTON COUNTY

Griffin Brothers, Inc.
Route 22
Salem, N.Y.

WAYNE COUNTY

Macedon Dodge, Inc.
90 Main St.
Macedon, N.Y.

Wayne Motor Sales
335 W. Union St.
Newark, N.Y.

Pat Mitchell Auto Sales, Ltd.
Route 104
Ontario, N.Y.

Tiberio Motors
W. Church St.
Savannah, N.Y.

WYOMING COUNTY

McClurg Chrysler-Plymouth, Inc.
125 N. Center St.
Perry, N.Y.

YATES COUNTY

Penn Yan Dodge, Inc.
Route 14A
Penn Yan, N.Y.

PENNSYLVANIA

BRADFORD COUNTY

Penn-York Valley Motors Co., Inc.
310 N. Keystone Ave.
Sayre, Pa.

Calkins Motors Sales, Inc.
510 Elmira St.
Troy, Pa.

Dave Snell Chrysler-Plymouth, Inc.
Route #6
Wysox, Pa.

MCKEAN COUNTY

Philip C. Bauschard
170 Seaward Avenue
Bradford, Pa.

Eldred Garage
Main St.
Eldred, Pa.

Battista Motor Sales
395 N. Fraley St.
Kane, Pa.

Smethport Garage Co., Inc.
Main St.
Smethport, Pa.

TIOGA COUNTY

Ed Brueilly Dodge
R. D. #1
Mansfield, Pa.

WARREN COUNTY

Len Faulk Dodge, Inc.
1650 Market St.
Warren, Pa.

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- **Heavy-duty front axle**
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For 1974, front locking hubs are standard equipment on W100 and W200 Dodge models.

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3785 Produces best yields at high population

- Produces uniform, well-filled ears. Recommend 22-24,000 plant population. High degree of resistance to barrenness.
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3773 Outstandin high test weight grai

- Excellent ear appearance grain texture.
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3873 An exceptionall good silage cor

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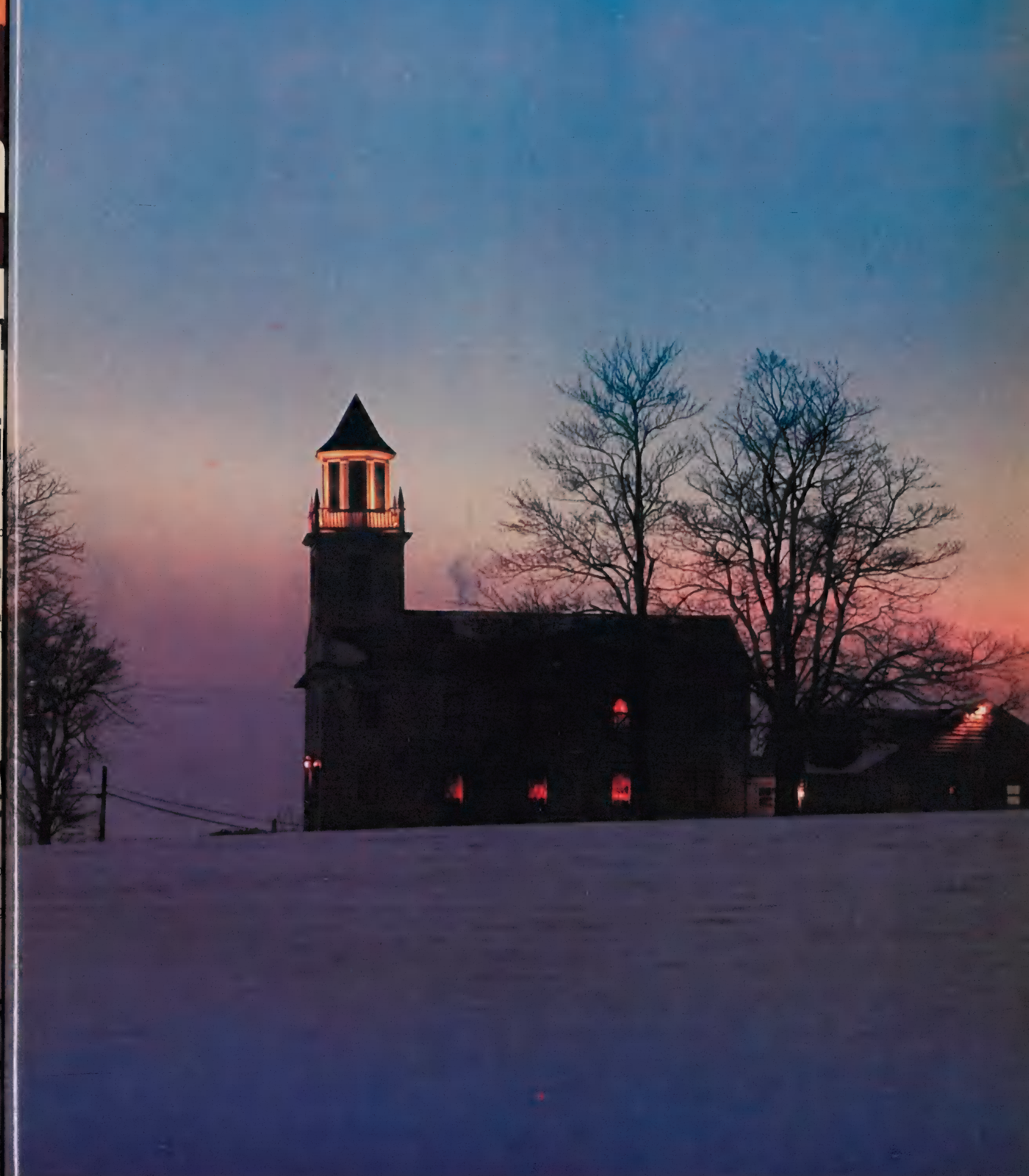
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For The
Northeast
Farmer

DECEMBER 1973

American Agriculturist
and the
RURAL NEW YORKER



Our 4166 delivers the brute workpower needed for hard pull, high speed tillage.

Comparing "rated" horsepower is not always enough. What you really need to compare among tractors is workpower. Making sure the engine torque-rise delivers heavy pull power over a broad range of rpms.
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*Mfr. max. engine hp.

Official test:
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OUR COVER

Photographer Doris Barker of Rochester, New York, calls our cover picture "Chili Church" . . . The First Presbyterian Church of Chili, New York.

ABC

STATE FARM MAGAZINES
FIRST WITH FARM FAMILIES

APA

A winter barn with a mushroom climate costs too much to operate.



Only mushrooms thrive in an atmosphere that's thick, humid and filled with the ripe odor of decaying manure. Yet that is exactly the kind of atmosphere that builds up in the cow barn every winter.

So what happens. First, the cows don't like it. Count on them to get the mid-winter "blahs", and then production decreases. Second, that moisture eats away at machinery, equipment and the building, leading to early breakdown and rot. Third, think about the guy who has to work in that barn. It's certainly no bed of roses.

You can rid your barn of "mushroom climate". An effective ventilation system will do the job nicely, and probably for less than you think. Whether it will pay off or not is a decision only you can make.

So here is our Special No Cost offer:

Simply contact the nearest Aerovent distributor. Arrange an appointment. Without cost or obligation, the distributor's man and the Aerovent district manager will meet with you to survey your barn. Based on their analysis, they will show you what it takes to have proper ventilation, and exactly what it will cost. Given these facts you can make your best decision.

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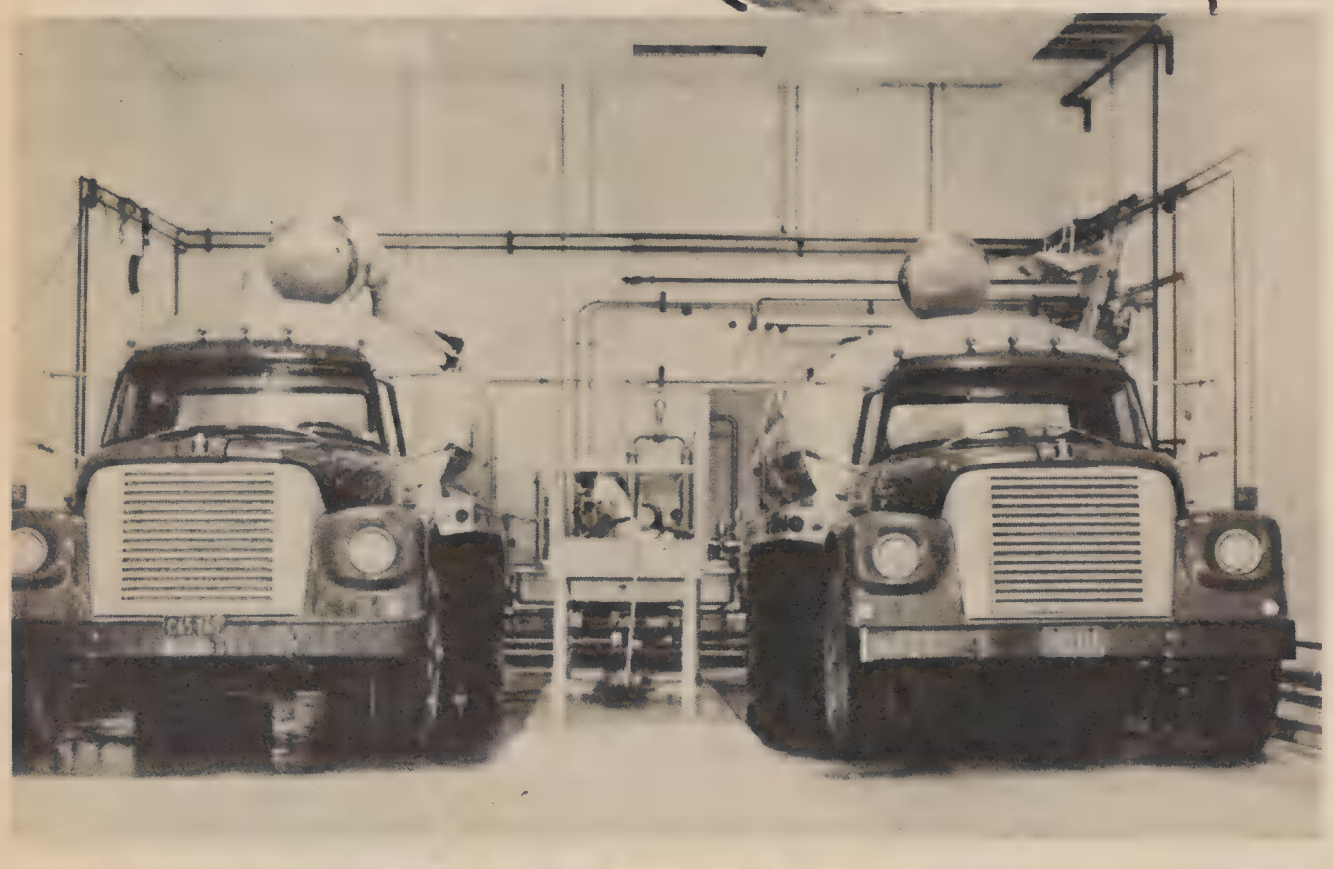
Yes, I would like to get the "mushroom climate" out of my cow barn. Please call me for an appointment.

Telephone
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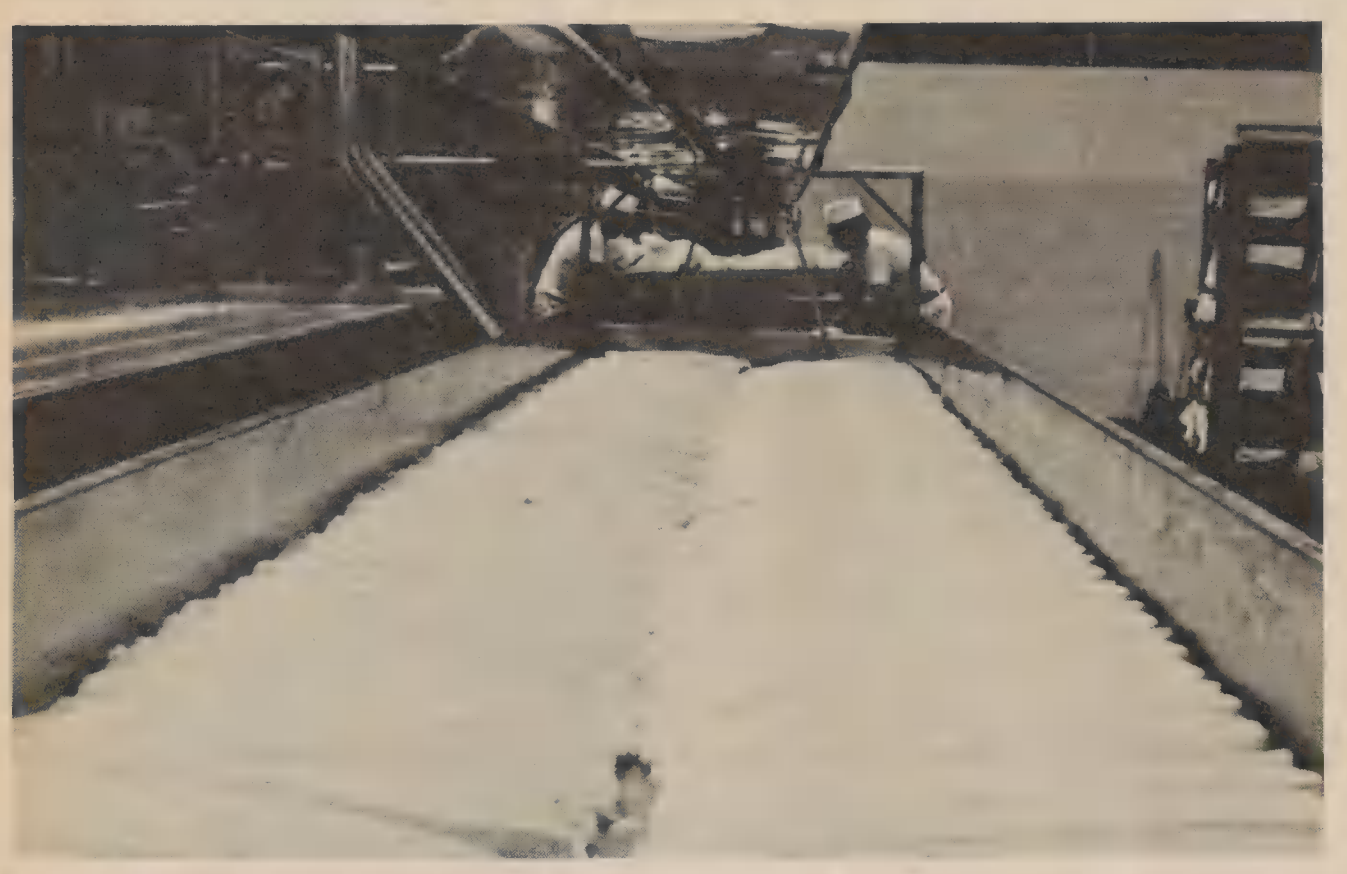
CHEESE Factory Grows

In terms of growth in per-capita consumption, cheese has become the success story of the dairy industry.





Two bulk-pickup milk trucks unload at the cheese plant.



The curd prepared here goes next to the cutter.



Fred Hodgkins puts slabs of curd into a cutter.

THE art of cheesemaking was born before recorded history, but the Egyptians are the first people officially credited as the creators of this protein-rich food. Although there have been many different kinds of cheese developed over the centuries, the most popular in the United States is cheddar. It is named for the town of Cheddar, England, where it was first made by dairyman Joseph Harding in the 15th century.

This delightful type of cheese was first made in New York State in 1851, near Rome. By the early 1900's, the town of Cuba, in Allegany County, had become the center of the price-determining activities of the nation's cheese manufacturers. Cheddar cheese produced in and around Cuba was in great demand.

Still True

Actually, Cuba cheese is **still** in great demand . . . produced now by a company owned by the Moses and VanZwanenberg families since 1941. However, massive changes have taken place in cheese production.

Edwin Moses, president of the Cuba Cheese and Trading Company, tells it this way: "As recently as 1943, the company had 20 plants making cheese . . . and we have only one now. But the one plant can make more cheese annually than all those 20 did put together."

In fact, the recently-enlarged cheese plant (in an area locally known as South Cuba) can efficiently make 20 million pounds of cheese per year! And no wonder . . . two tanker trucks can unload milk simultaneously, and milk storage tanks include two having a capacity of 340,000 pounds each . . . plus two more holding 85,000 pounds each. No problem of whey polluting streams here; a whey-drying facility converts this by-product to a salable powder.

Capacity

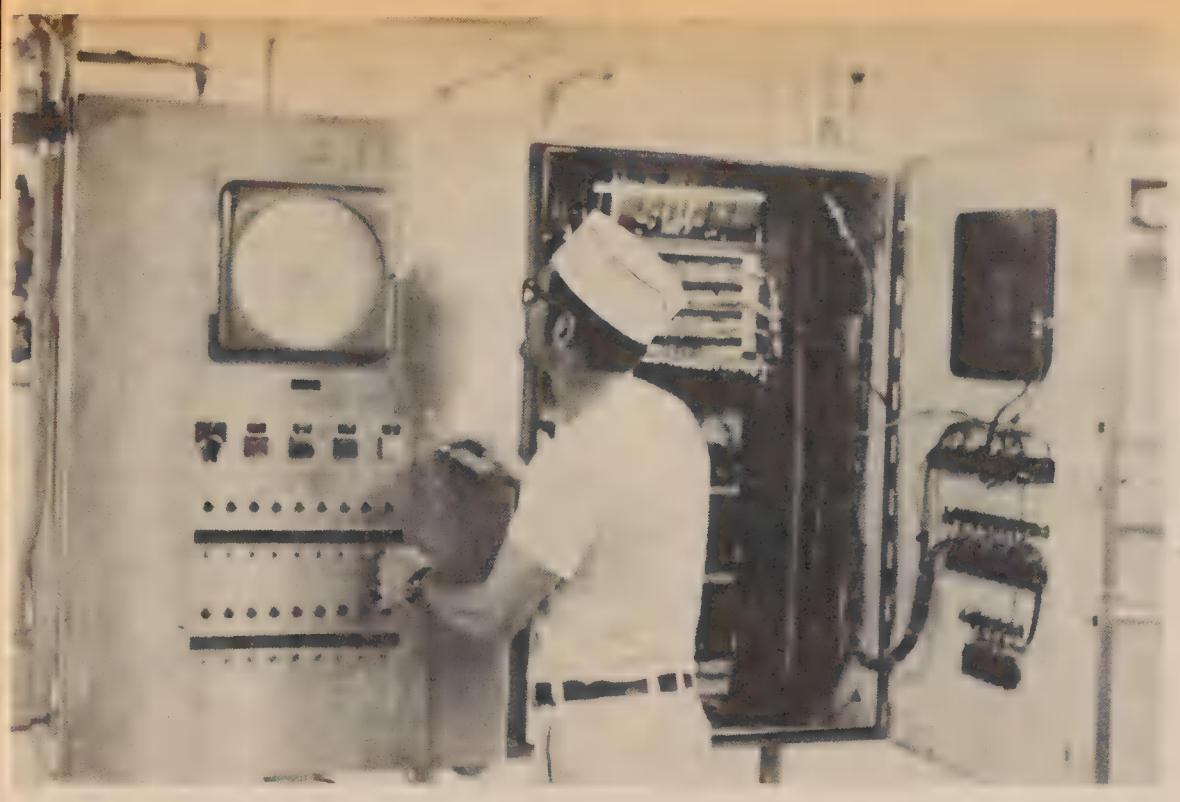
Ed reports, "The efficient capacity of the plant is 800,000 pounds of milk per day . . . which would make about 74,000 pounds of cheese." Usually, milk will yield about 9.25 pounds of cheese per 100 pounds of milk, but the fall of 1973 saw this figure drop at Cuba Cheese to 9 pounds.

By explanation, Ed comments, "The high price of dairy feed forced farmers to cut back on its use, and we always note a drop in yield of cheese when they reduce grain-feeding levels."

Winner

Over the years, the company has garnered many a medal at the New York State Fair for its cheese . . . gold medals in 1965, 1967, and 1971

(Continued on next page)



Shift foreman Albert Green beside major control panel in cheese plant.

BOOK REVIEW

Building Guide — A new book that fills a real need in the field of farm building construction is *Practical Farm Building*, by Dr. James S. Boyd.

An agricultural engineer, Boyd has made the book far more than just a how-to-do-it guide, although it is certainly that. Every important factor in farm building is covered . . . planning, farmstead arrangement, services or utilities, locating buildings, and special consideration given to the farm home. It's a reference for choosing material, building trusses, replacing joists and beams, determining size of buildings and estimating their cost.

This 265-page, paperbound book is designed not only as an operating handbook and reference guide for practicing farmers, but as a text for courses in building construction. Clear line drawings illustrate every point.

Printed by Interstate Printers and Publishers and available through American Agriculturist, P. O. Box 370, Ithaca, New York 14850. Price $7.95. New York residents add state and local sales taxes.

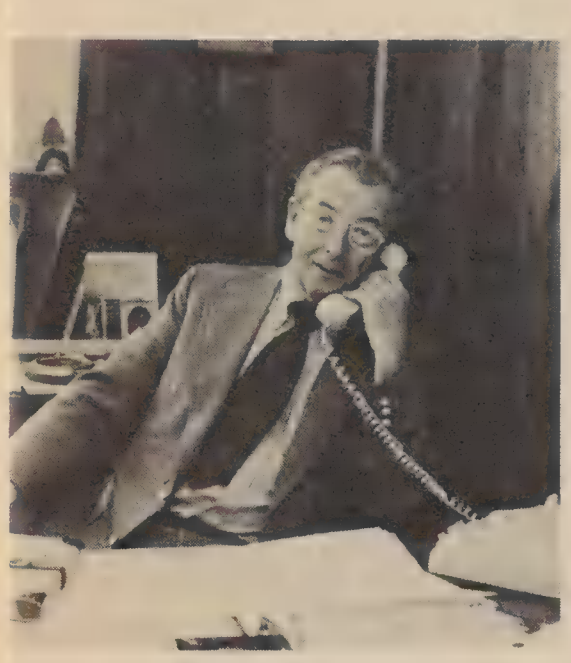
. . . silver ones in 1963 and 1972. There are four other major cheese-making plants in the Empire State, plus a few smaller ones.

Looking ahead, Ed comments, "We presently make about one-fifth to one-sixth of all the cheese made in the state . . . and our goal is to make one-fourth to one-third of it." Judging by the size and efficiency of the enlarged plant, they'll make it!

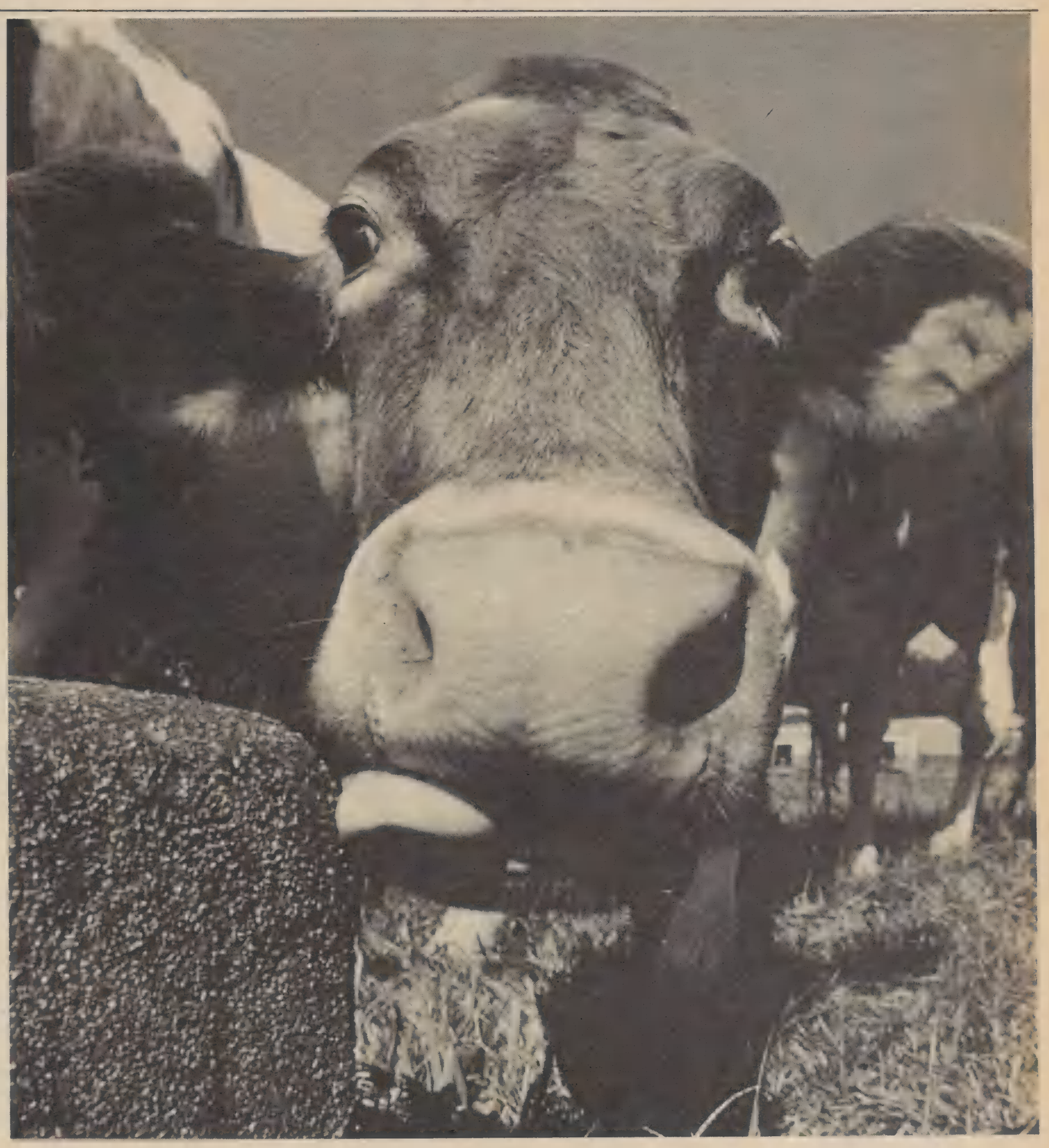
Visitors are welcome at the cheese factory, but it's best to make advance arrangements. Two or three organized tours go through each week, and eventual completion of remodeling will facilitate such tours. Old-timers won't find the coal smoke and wooden cheese-boxes they remember from bygone years, but the cheese they'll see tastes better than ever!



Whey is dried and the bagged powder sold for various uses, including bread-making.



Company president Ed Moses sells some more cheese via the telephone.



Ohio dairymen get 220% return on investment.

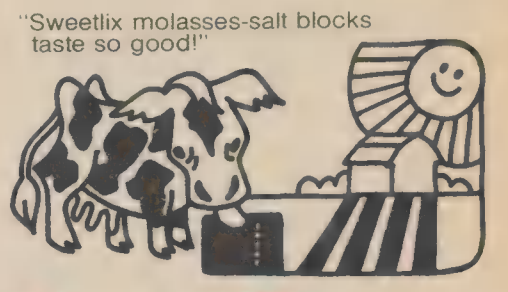
During a 90-day test, 15 Ohio dairymen fed 515 cows Sweetlix 3-in-1 molasses-salt blocks in addition to regular rations. An additional 189.6 lbs. of milk was obtained per cow during the period when compared to the DHIA nurse cow table found in Ohio Dairy Bulletin 515. The dairymen got back $3.20 for each $1.00 spent for blocks—based on September 1973 milk price at Wooster, Ohio.

Sweetlix 3-in-1 blocks help balance most roughages to improve return. They provide highly palatable cane molasses, salt, dicalcium phosphate, six major trace minerals, EDDI (an organic source of iodine to aid in the prevention of foot rot and soft tissue lumpy jaw) and vitamins A and D.

Another way to better utilize roughage . . . from the folks who make a full line of Sweetlix molasses-salt blocks.

STALEY SPECIALTY FEEDS
DECATUR, ILLINOIS

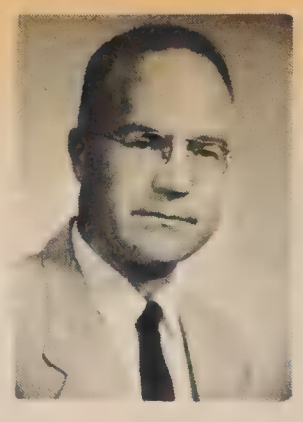
"Sweetlix molasses-salt blocks taste so good!"



Sweetlix® 3-in-1™ blocks

molasses mineral block medicated

EDITORIALS



by GORDON CONKLIN

WELL DONE

At its recent annual meeting, the New York State Farm Bureau presented its Distinguished Service Award to Harold Hawley of Weedsport, New York. AMERICAN AGRICULTURIST has had the good fortune to number Harold among its regular writers since 1961 . . . and all of us at the publication join many others with congratulations for an award richly deserved.

As I'm sure Harold would be the first to agree, his wife Doris shares credit for the award. As far as writing is concerned, methinks she does all the typing of copy sent to the magazine . . . and probably also serves as consultant on the spelling and punctuation, as well as some of the topics chosen.

The Hawleys, through good times . . . and some that have been terribly difficult . . . have been an inspiration to many people, including myself. They come to mind when I hear the phrase, "the salt of the earth."

Well done, folks!

THE OTHER SIDE

I note that CBS crews have recently been in Vineland, New Jersey, shooting a movie acted out by professionals to be called "The Barlows." Among other things, the script includes a tearful episode depicting a family of migrant laborers driving around trying to find a place to bury a relative who has died in the tomato fields. Because of the alleged hard hearts of the locals . . . including the flint-faced growers . . . this is staged to be quite a problem.

"The Barlows" film is scheduled to hit national TV next February . . . if the first one is successful, CBS is reported planning a series along the same line (perhaps 39 more episodes). So much for show biz . . . I'm left wondering if the movie stars playing the parts (or the script writers writing the lines) have ever visited much with seasonal farm workers. My guess is that they haven't . . . and this goes double as far as contact with **farmers** is concerned.

Not long ago, it was my privilege to visit with some seasonal workers at a farm operated by Howard Baker and son Paul of Ransomville (Niagara County), New York. These workers included Nathaniel Burley and J. C. Upshaw from Florida, as well as the boss of a day-haul crew from Buffalo, Mrs. Liz Goldstein.

These folks, all blacks, gave basically the same description of their working relationship with Howard: "He insists we and all the rest of his employees **produce**, but he's fair and his word can be depended on." Tough, but fair and honest . . . isn't that how most people would define an employer for whom they have respect?

It troubles me that television documentaries about social problems hardly ever tell of the other side of a coin that admittedly includes injustice as well as fair play. The path to easy fame (and quick dollars) often involves the exploitation of the all-too-human conflict and injustice that afflicts us all . . . but I remain convinced that there is a place for the perspective that renders life not only bearable, but also positive.

Howard has over the years invited several socially-concerned individuals to visit his farm and talk privately with his seasonal workers. In all too many cases, they have avoided the opportunity . . . sensing intuitively, I suppose, that the evidence gathered thereby would not support their cherished notions about the situation.

Every person is a mixture of plus and minus . . . and the plus is as much a part of reality as is the negative. I think television executives owe the public a balanced look at the truth, not a highly-biased script that is intended to stir the glandular juices even as it confuses the brain.

THE BITTER AND THE SWEET

As the years move on, I understand even more fully a remark by the late Ed Eastman, former editor of AMERICAN AGRICULTURIST. He said, "The hardest part of growing older is the sad necessity to say goodbye to friends and loved ones as they move into the valley of the shadow."

One of those in that category is Ralph Culver of Laceyville, Pennsylvania . . . farm innovator, community leader, dedicated family man, and friend of AMERICAN AGRICULTURIST folks for many years. The sum of his positives and negatives left an enormous residue on the plus side of living.

It is ordained in this world that all living things must die . . . including you and me. And that ever-present certainty combines with a fuller measure than usual of the world's sorrows to make this holiday season of 1973 a potentially somber one.

But I cannot despair . . . for I sense the strains of a cosmic symphony written by the lives of great men and women across the pages of history. Nearly 2,000 years ago, a man was born in a cow barn . . . a man whose life and words have become a conductor for that orchestra of constructive souls.

If the darkness of our world seems overwhelming, look long at the bright green promise of the Christmas tree. If the cynicism and pessimism of our day have brought you to the brink of despair, find new hope in the eyes and actions of children who greet each Christmas anew with hopeful hearts. And ponder the life of that man from the manger in order to find meaning in a world that sometimes seems to have gone mad.

May the holiday season be a heart-warming one for you and yours . . . and may the coming year bring more joy than sorrow.

OPENING THE FLOODGATES

Within the last year, 265 **million** pounds of nonfat dry milk have been imported into the U.S. because of what is officially called an "inadequate supply of milk." Yet, an "adequate supply of milk" has at the same time been used as the excuse for setting dairy price supports at the lowest percentage of parity permitted under national legislation.

And now it appears that butter from countries overseas, including more than a million pounds already in from Ireland, will be allowed to flood into our markets. American dairy farmers can successfully compete in terms of efficiency with others anywhere in the world . . . but not if the food product involved is being dumped on our markets as a means of disposing of a government-subsidized product.

Supposedly, U.S. farmers are protected from such dumping competition . . . where the product sells far below cost because the foreign government is paying the difference between prices their farmers receive and the cut-rate price at which it wholesales in the U.S. Actually, there is a question as to whether such protection is actually being enforced.

Remember, though, that all the clout of corporate industrial giants and organized labor has not been successful in turning back an avalanche of imports . . . steel, autos, electronic equipment, clothing . . . the list is endless. We are in a world market, like it or not.

It seems to me that the dairyman, through the farm organizations to which he belongs, should push hard to see that anti-dumping regulations are enforced. There is no justice in forcing him to compete with a foreign treasury!

BLACK IS BEAUTIFUL

By gum, the lowly crow has finally made the big time! New Jersey has become the first state to set a crow hunting season under the new federal requirements . . . open season from August 1 to September 30 and from January 1 to March 4. The law allows states to set the time of their own crow seasons, but it cannot exceed four months of any year.

Somehow, I've always had a sort of love-hate relationship with the crow. He swiped a lot of hard-earned corn seed during my boyhood years . . . but he nevertheless earned grudging respect as a canny old rascal with a lot of crow-community spirit.

In modern farming, the crow doesn't do near the damage caused by the blackbird. And Old Caw-Caw is indispensable for keeping the highways clear of a jillion wild animals bashed by automobiles.

Having survived all that man could throw at him for generations, do you suppose our black-feathered friend can now stand prosperity?

POISON THE BIRDS

Ed Marsh, executive secretary of the National Wool Growers Association, is considerably agitated. He reports that the National Audubon Society is a vociferous opponent of the use of chemical toxicants to control predatory animals killing sheep . . . but the Massachusetts Audubon Society last spring sponsored a program to poison seagulls in order to protect the tern. He's puzzled by the inconsistency.

Ed, you'll find that the loudest and most self-righteous lectures on how to do (or not do) most anything are delivered by people who are not directly involved with the problem. When a college sophomore, I could advise at length about any topic . . . from child-raising to caring for the elderly.

A bird enthusiast is aware of the plight of the tern . . . but the sheep being torn to bloody tatters by the coyote is far away. Besides, doesn't lamb come from Australia?

GUEST EDITORIAL

We have had inflation for so long that complaint among consumers has become chronic. The food industry responds, as if in apology, that incomes have risen faster than prices. The explanation is as hollow and meaningless as the self-oriented crying towel appeal that both profits and margins are low.

The consumer couldn't care less about profits, margins, market efficiency, how long it takes or how much sweat and tears are involved in raising a beef animal. Her concern is with price . . . period. When incomes rise, people expect to spend more for a better home, a larger car, a longer vacation. They do not expect to spend more for food. Dollars added to the paycheck are regarded as dollars earned.

It is human nature for each of us to regard as inflation only the resulting higher prices we pay . . . not those we receive. — *Max Brunk, Professor at Cornell University.*

John Kowalski (a nephew), Dick Rigsbee (Agway Salesman) and the Leisers, Skip, John and Warren, Columbia County, N. Y., discuss plans for a second storage bunker and new free-stall barn.

Some people say the Leisers "could make milk out of sawdust"

The Leisers have been doing business with Agway for over 35 years. During that period, they've accepted Agway recommendations on feeds, feeding, crop management and other dairy practices.



Today, for instance, they're following Agway's direct-seeded alfalfa program to raise most of the protein they need. Agway corn hybrids supply much of the energy. And Agway's Total Dairy Ration Profile program, based on regular forage tests, helps utilize both protein and energy to the greatest advantage.

Feeding is based on a Total Mixed Ration. And an Agway Schwartz mixer wagon is the key to the program. According to Skip Leiser, the wagon *"does a great job for us. Every time you feed, you know that each cow is getting the exact ration you want her to get.*



"I like Agway's whole approach to feeding," adds Skip. *"You start with what you have and build on it. That's how we got onto direct-seeded alfalfa. Most of it goes into the bunker as haylage. We make the rest into hay. And it works out fine."*

Dick Rigsbee, the Agway Dairy Enterprise Salesman, sits in on most of the Leisers' planning sessions. *"And why shouldn't he?"* asks Skip. *"Dick is on top of all the latest in crops management, feeds and feeding and ways of doing things better. We know we can count on him for good, sound advice."*

If you'd like to strengthen your farm management team, and gain from Agway's experience on hundreds of farms like yours, just call your local Agway Store and ask for an Agway Dairy Enterprise Salesman.

Farm Enterprise Service AGWAY



Doc Mettler comments on:

Rekindled memories

HAVE you ever sat daydreaming, and wondered what it would be like to close your eyes, open them again and find you had traveled back years to when you were ten or twelve? For a few hours in mid-October, I felt as though this had actually happened.

The scene was a southwestern Wisconsin farm in a beautiful little valley not unlike some of our valleys in the Berkshires. Brown and brindle cows grazed on a green bottom-land pasture and four coon dogs came barking to us with wagging tails as we got out of the car. I could hear the sounds of chickens behind me in a small hen house as the dogs stopped their barking, and a big gray tomcat came over to rub against my leg.

The whole farmstead was neat and uncluttered. There was a handsome old farmhouse, sparkling white, and numerous buildings from doghouses and chicken coops up to a small cow barn. A two-wheeled wagon loaded with pumpkins and acorn and butternut squash stood in the shade of a small machine shed. Next to this wagon was another where white ears of popcorn was spread out to dry.

In front of the house was a water hydrant resembling the old high cast iron pumps so familiar to farms 40 years ago. To the side of the house was a garden with some of the biggest, most unblemished pink roses I have seen in years. Between the house and the dairy barn were unmistakable signs that cows had walked here four times a day for years, but every trace of manure had been scraped and put out of sight.

Inside, the barn was not whitewashed, but immaculately clean, with stanchions for about 20 cows. Conspicuous by its absence was any sign of a milking machine. Beyond the stanchions were four box stalls with two slick Brown Swiss calves, a fat black veal calf, two yearling Brown Swiss heifers, and an old, grade Swiss with curly horns and an injured hip.

The farmer, neat as the farm in denim pants and a blue work-shirt, greeted us with a smile and handshake. When I shook his hand I thought of my father's hands. The hands of a man who has milked cows by hand for a lifetime acquire a certain gentleness and strength that is unmistakable.

He was introduced to me as Bill Pickle (several generations back it had been a good German "Bickle"). Bill and his brother, Len, and two sisters lived on the farm with their father and Uncle Fred, who was well past 70, and Fred's wife. Bill's father was not home, but in the hospital for some surgery. Though close to 80 the senior Mr. Pickle had worked every day until his trip to the hospital.

Bill explained to us that he and Len had to go pick up potatoes they had dug, since the weather indicated a hard freeze that night. He said, however, that they would be back soon to do chores and let us observe their hand-milking operation, which was the purpose of the visit. In the meantime, we could look around and make ourselves at home.

Typical

The milkhouse was typical of the mid-thirties, with no hot water and a can cooler. All the milk utensils were on pipe racks and were so clean I could only think of all the elbow grease and steel wool that must have gone into the twice-a-day cleaning. The milk from the farm went to a cheese factory, but I would bet that the raw count of bacteria seldom went over 10,000. It made me think of the milkhouse at home when milk brought $1.20 a hundred, and if you stayed below a 10,000-count you got a 60-cent grade A premium.

In the machine and tool shed was another old coon dog, this one part hound, and from his color I would guess of Redbone ancestry. He was on three legs, but in good shape. Bill told me he used the old dog to break the younger ones.

Scrap

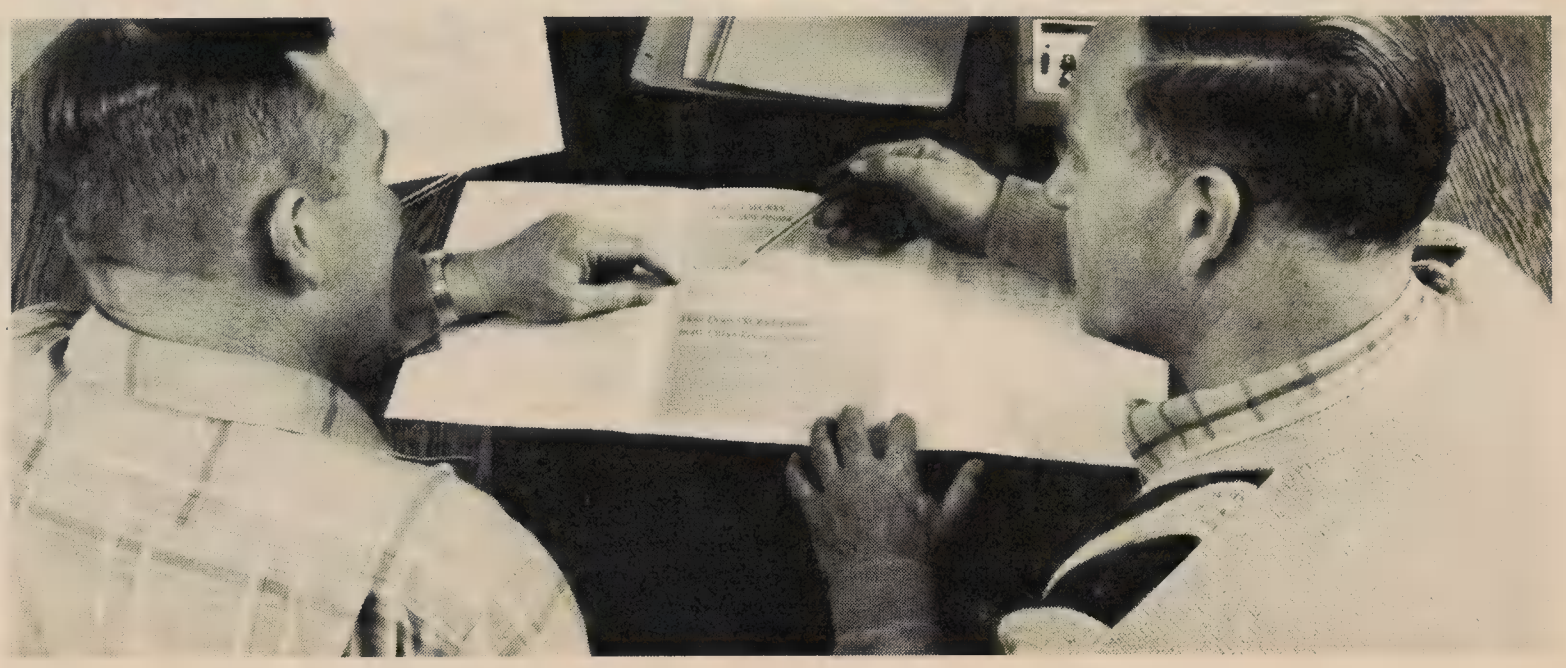
A huge freshly-skinned coon hung in the cool shed. It looked every bit like a small lamb carcass and I would estimate the live coon must have gone over 28 pounds. The night before, Bill and Len had gotten three they said would bring $20 a pelt. The big one had been killed on the ground by one of the younger dogs. The dog didn't have a mark on her, but still, what a scrap that must have been!

In the shed every tool was hung in its place. Metal parts of cutting tools and things such as shovels were coated with oil.

Beyond the dairy barn was another small barn with more calves and room for a few nurse cows. Behind this was a pile of oak firewood stacked neatly in a pile of 4 feet long, 4 feet wide, and I would guess 60 feet long. The pleasant odor of wood smoke came from the house chimney, and I guessed that the Pickles were not going to be a bit

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concerned about the oil shortage coming up.

Before too long, as the sun dropped toward the nearby Mississippi, I could hear Bill calling the cows while Len brought out a few bales of real nice hay to put in the pasture for evening to supplement the late fall grass.

As the cows came toward the barn, one of Bill's sisters crossed the yard, followed by at least 14 of the healthiest cats I have seen in years. She told me that at one time they had more than 100 cats on the farm, but disease had nearly wiped them out. She added that a national magazine had come to take pictures of her and her cats, but as she told me this story she had a twinkle in her eye that made me think perhaps she was teasing.

The cows came to the barn completely unconcerned about the four strangers on their home grounds. Most were of Brown Swiss background, being either typical Swiss color or bridle. Three were Guernseys and one was a Milking Shorthorn.

The whole family milked, including Uncle Fred, who had just returned from mowing hay for a neighbor. He said it was too cold for comfort on the tractor and he had looked forward all afternoon to getting back in the warm dairy barn.

Familiar

Here was where I really felt as though I was dreaming. The barn was completely silent except for the noise of cows licking grain from their mangers. I heard the click of a wooden three-legged stool as it hit the concrete, a soft "soo boss." Then there was silence while the first milker washed the already clean teats and udder with a warm cloth. The udder was dried and then, the sounds I hadn't heard in years, but so familiar.

First a few slow streams of milk hit the pail bottom and then a faster and faster ping, ping, ping as milk began to cover the bottom. It was only a few minutes until I could hear streams of milk going into a thick layer of foam.

The first milker, though, was one of Bill's sisters and if you think a minute, you'll outguess me as to where the first milk went . . . that's right, "here kitty, kitty, kitty" as the milk went into the cats' dishes. Milk was strained into the cans in the little milkhouse and as soon as a can was full it was put in the cooler.

I had forgotten how really fast a good hand-milker milked. Cows were prepped, and milking started almost immediately at a slow rate until letdown occurred in, as I timed it, about 30 seconds. After that, the milker went as fast as possible, two front quarters until dry, two rear until dry, a few streams of stripping and that was it, all over in five or six minutes.

Mastitis

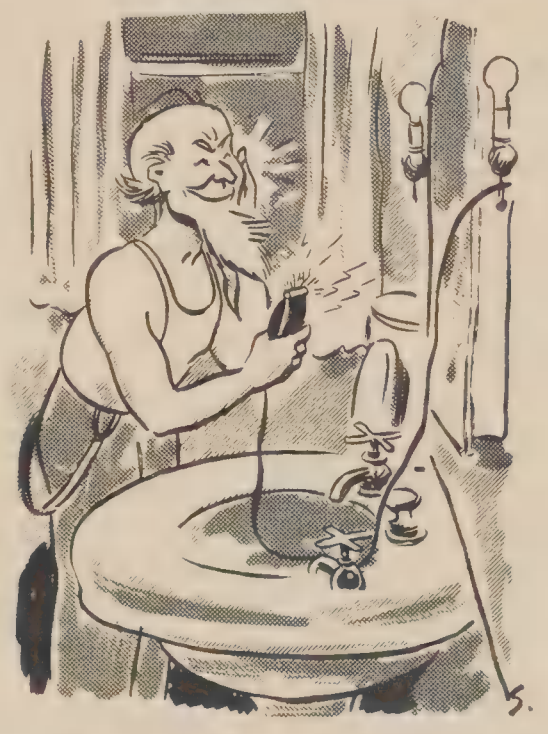
I asked Bill about mastitis and he said he had one case on a cow that got cut on barbed wire, but none that he was aware of other than that. The well-balanced udders on the cows and the feel of them after milking made me believe him.

As the last cows were being milked I heard someone say, "Look out the windows," and there framed like a wonderful painting, was the blue and pink afterglow of the already-set sun. The whole scene was too unbelievable, too much like a dream, but it did happen and we have tapes of the sound, and pictures to prove it. More important to me, I have it all as a memory. Like a glimpse of Brigadoon, for a few hours I unexpectedly returned to things I had not seen for 40 years and probably will never see again.

I hope I may have rekindled some memories for some of you and given others at least a little idea of what a subsistence farm is really like. It takes special people like the Pickles to make a subsistence farm pay, and more important, to be happy on it. I doubt if they would want to exchange places with anyone in this world.

To all of you I wish a holy, happy holiday season and hope that true peace, as I saw it on this wonderful farm in Wisconsin, will be with you in 1974.

The Song of the Lazy Farmer



Although it's ninety seven-three, I still regret I'm not, by gee, alive in those good, warm days before the automatic craze. I'm talking 'bout when we, at night, used kerosene to give us light; when we got water from a pump and henpecked husbands had to hump to chop the piles of wood it took to heat the house and please the cook. The breezy back porch was the place where I could shave and wash my face; we used a pail and laundry tub for Saturday's all-over scrub; we had no room we called a bath, but just a shanty down the path.

Today, of course, we're civilized and ev'rything is modernized; no wood to cut before we eat, now we have automatic heat; there is no path across the lawn, the pump and shanty are both gone. We've got a modern powder room, but this has really meant my doom 'cause now there's no excuse to say that it's too cold to bathe today. And worst of all, with things inside, Mirandy simply won't abide a beard, mustache and sideburns too, the beard alone has got to do. A fuzzy cheek will make her rave, so ev'ry day I've got to shave.

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The end of each year gives you an opportunity to "do better next year." It's a new chance to improve crops management and production . . . a new chance to cut costs . . . and a new chance to tune up your feeding program for top milk income over feed costs.

And right now, with everything fresh in your mind . . . with the crops all in, with freshening cows in the barn and a little more time for reflection . . . it makes great sense to sit down with your Agway Dairy Enterprise Salesman and talk the whole thing over.

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Taking the time now to pose and answer such questions could mean a big difference to you and your family and your whole life-style. And it's so easy to do. Just ask your local Agway to have the Agway Enterprise Salesman call you for an appointment.

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by Amos Kirby
New Jersey Editor

Swan song

THIS is my last column of news from New Jersey. After about 45 years as the New Jersey-Eastern Shore editor, it is high time that I open up the field to one with a younger mind and a new approach to the problems of farmers.

Those 45 years with the AMERICAN AGRICULTURIST have been one of the most pleasant experiences of my writing career. And my association with such fine people as Ed Eastman, Hugh Cosline, and now Gordon Conklin, is a fitting climax to a career that has involved 50 years as a writer for country weeklies, farm magazines, trade journals, and city newspapers, and 15 years with what is now a part of the Columbia Broadcasting Company as farm director with WCAU in Philadelphia.

During my 15 years with WCAU, I "moonlighted" my AA–RNY column.

If there was any one person who had an influence in my devoting all my writing to the field of agriculture, it was the late Dr. Bristow Adams, then head of the Department of Extension Teaching and Information at Cornell University.

Dr. Adams was a judge at an annual meeting of the New Jersey Press Association. At that time, I was working with the *Monitor Register*, Woodstown, New Jersey. One of my tasks was to gather news about farmers and farming. This particular exhibit included a five-inch clipping I'd authored about three growers in Salem County. Dr. Adams told the delegates that here was a style of writing he had been urging upon his students who were planning to work in rural areas.

This award, won in four consecutive years, decided my future in the field of journalism. Before winning that award, my mind was drifting toward the big-city type of news. This was based on my coverage of a murder case for the then highly-respected *Newark Evening News*.

If my style of writing for the AMERICAN AGRICULTURIST had any distinct pattern, it was based on my brief schooling under Dr. Adams. This same style was followed in the nearly 4,000 broadcasts during the 15 years on radio.

One of my most exciting efforts was a feature article in AMERICAN AGRICULTURIST that led to a libel suit for a quarter of a million dollars. This was a story about the Strand Electric Company of Newark, New Jersey . . . at about the time that the Atlantic City Electric Company was starting to expand its lines into rural areas.

Representatives of Strand would go down a road telling people that just as soon as everyone on that road had signed up to have their homes and buildings wired, the power company would build the line. The wiring contract called for various sums ranging from $200 to more than $1,000 each.

When the Atlantic City Electric heard of this, they were both shocked and disturbed, as they had no plans to build for years on those particular roads. In writing the story, I listed the Strand Company as crooks and told readers not to sign any more contracts. I made one slight mistake, though, forgetting to add the word "alleged." It also escaped the editors at the home office.

After the AMERICAN AGRICULTURIST hit the rural areas, not another contract was signed. That demonstrated that this farm paper was being read!

Stuck

In the meantime, the wiring contracts had been sold to a Newark finance company. When they learned that the power company was not building rural lines, and that no payments would be due for years, they were stuck on scores of contracts.

The finance company lawyers read the AMERICAN AGRICULTURIST, and believed that their client had been libeled . . . so they sued in the New York Supreme Court for $250,000. The late Henry Morgenthau, then owner of AMERICAN AGRICULTURIST, instructed me to gather evidence that what I had said was true.

Four years later, the case came to trial in New York City. After a week of hearing from farmers who had signed contracts, the case went to the jury. At the start of the trial, the judge told the jury that the story **did** libel the plaintiff, and they were to recommend damages.

The jury's verdict was brief. It awarded the finance company six cents, which in newspaper terminology meant that they had no grounds for suing, and that, while I had libeled the Strand Company, I had not damaged their reputation.

This little incident cost the AMERICAN AGRICULTURIST more than $8,000 in legal fees. Afterward, Mr. Morgenthau commented, "The money was well spent."

Getting News

Securing the news for the New Jersey column has been possible only by much travel. In the early years of my association with the AMERICAN AGRICULTURIST, I traveled extensively throughout the state. In the language of the sportsman, I was searching the field. Some trips were highly successful; others were in vain . . . but the sum total was a rewarding experience for me.

During this period, I traveled an average of 30,000 miles per year by automobile, plus what I traveled by rail and air. Since retiring from radio in 1959, I have traveled over a quarter of a million miles at my own expense. This year alone, it will amount to at least 25,000 miles, much of it via air and rented automobiles.

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What's more, you'll probably be changing forages as you begin to feed haylage, go to a new cutting of hay or open another silo. That's the time for another forage test, the only way you can be sure how much protein and energy your forage is really providing your cows. Until you know that, it's difficult to know how to *balance* the total ration to get top production and the highest income over feed costs.

Once you've had your forage tested, the Agway TDR (Total Dairy Ration) Profile program will give you, and the Agway Dairy Enterprise Salesman, all the information needed to select the proper supplement to balance out your forages.

Armed with facts from a forage test and TDR Profile, it's now a simple matter to select the Agway Ratio:Right feed that will *balance* the energy and protein in your forages. Thus you'll know that, aside from maintaining the cows and building calves, the protein and energy that's going into your cows is going into the milk tank as profit.

Call Agway soon and ask for a Farm Enterprise Salesman. He'll help you take the steps you need to make the most milk you possibly can—at the lowest possible feed costs.

In recent years, the style of reporting has changed. In the place of local reporting, my column has largely reflected trends in farming. This is where my extensive travels have helped me to see what is taking place elsewhere that applies to farming in the Northeast.

The coverage of events in a changing agriculture has been possible only through the cooperation of the agricultural colleges in New Jersey, Pennsylvania, Delaware and other states. The deans of these colleges, and their staffs, have maintained an open door whenever I called. The same goes for the county agents.

The people at the various departments of agriculture have never failed to help. Farm Bureau and Grange leaders have also been of great assistance over all these years.

In concluding my work with AARNY, there remains one question: "Have the readers accepted my reporting?" Most writers judge their work on the mail they receive. My columns have either been ignored, or they have not stirred people to write. Maybe I did not report the items that cause readers to get stirred up enough to comment . . . favorably or otherwise.

There is one exception. A few years ago, I reported that a hay dealer on Long Island was selling hay at $160 a ton. Frankly, I did not know there were so many hay dealers in the Northeast!

It has been a satisfying 45 years with AMERICAN AGRICULTURIST. The editors have accepted my material with few, if any, suggestions.

I am stopping regular writing because of age, but I can assure you of my continued interest in farming. I want to see what is going on in America, and have just returned from a trip into Maine, Quebec and Prince Edward Island to get a first-hand look at the potato situation.

By the time this appears in print, I will have been on a trip to the grain and cattle states of the Midwest. Come January and February, I may be looking at the winter greenhouse-vegetable deal in Arizona . . . and hopefully may take another visit to Mexico to learn what the tomato-pepper growers are doing at Culiacan, 600 miles south of Nogales.

If time permits (and the editor agrees), I might write a feature on the lumber industry. Tree growing for timber, paper and allied products is being as scientifically pursued as growing vegetables, producing fruit or operating a dairy farm.

Editor's note: AMERICAN AGRICULTURIST has long been proud of its association with Amos Kirby, a writer who has been honored by many organizations for his years of contribution to the well-being of farm people in New Jersey and the Northeast. His has been a consistently constructive approach to rural people and the agribusinessmen who serve them.

We at AMERICAN AGRICULTURIST join Amos's hundreds of friends in wishing him well . . . and thanking him for a job well done!

Real estate values up



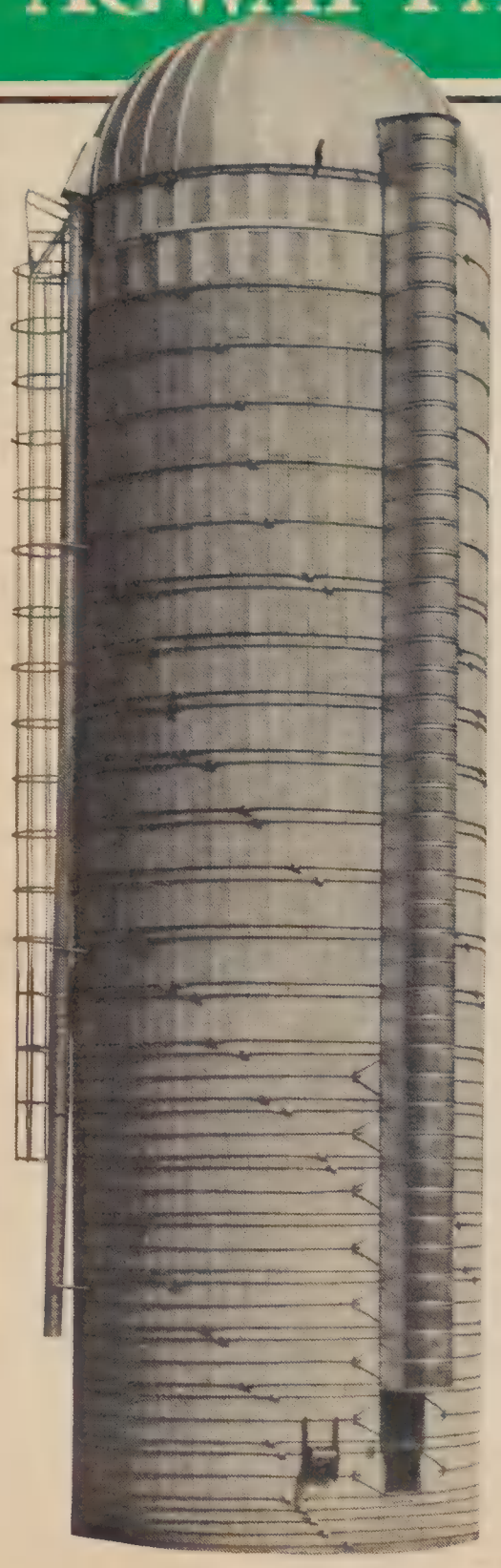
The accompanying table provides some numbers that illustrate the rapidly-rising value of farm real estate in the Northeast. Note especially the right-hand column . . . the average **compound** rate of annual increase in value per acre over the last 10 years. These numbers are comparable to the interest rate figures for a savings account in a bank. Investment in **farm land** has on the average been a mighty good one for the past decade!

FARM REAL ESTATE VALUES
MARCH 1 VALUES

State	Average Value Per Acre 1970	1971	1972	1973	% Increase 1972–73	% Change 1963–73*
Maine	$ 161	$ 183	$ 206	$ 235		
New Hampshire	239	287	323	368		
Vermont	224	256	288	328		
Massachusetts	565	623	702	799	14	9.4
Rhode Island	734	807	910	1,036		
Connecticut	921	1,025	1,155	1,316		
New York	273	292	344	390	13	8.5
New Jersey	1,092	1,171	1,364	1,599	17	11.8
Pennsylvania	373	396	430	518	20	9.6
Delaware	499	559	574	663	16	7.2
Maryland	640	699	752	888	18	10.9

*Average annual compound rate of increase in value per acre for last 10 years.

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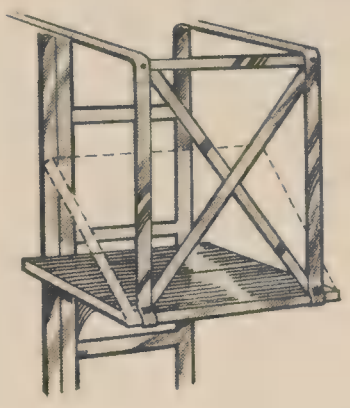
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The backbone of your Madison Silo is the **Vibra-Cor stave**. It's manufactured to rigidly controlled specifications . . . then conditioned on a heavy-duty Vibrapac machine. The truss design, extra thickness (3⅝″), plus heat and steam curing, give this stave twice the lateral strength of other concrete staves.

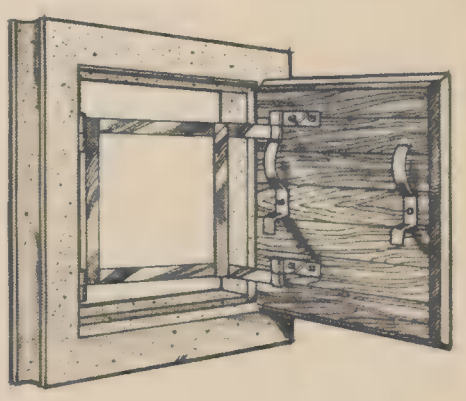
Staves are reinforced with **hoops of high-tensile steel . . .** roll threaded, then galvanized with additional dichromate protection.





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Dollar Guide

MILK PRODUCTION in U.S. predicted by USDA to be down 3 percent in 1973 as compared to '72. Sharply increased feed costs have teamed up with high slaughter-cow prices to encourage decline in cow numbers, as well as lower levels of grain feeding. General price relationships of milk and cull cows to purchased inputs likely to remain similar for next few months.

ALDRIN AND DIELDRIN, two widely-used soil insecticides for corn, are lined up in sights of federal Environmental Protection Agency. Possibility EPA will cancel all uses.

American Cyanamid is seeking registration for Counter, a new soil insecticide for production of corn.

DEEPER PLOWING tends to be more common because of stepped-up horsepower of tractors. Remember that most liming recommendations are based on plowing depth of 6 inches --- application rate of lime should be increased as furrow-slice deepens.

EGG PRICES (NY, USDA, wholesale fancy large white) predicted by Poultry Survey Committee to be: Jan-March, 59¢ per dozen ... April-June, 49¢ ... July-Sept, 51¢.

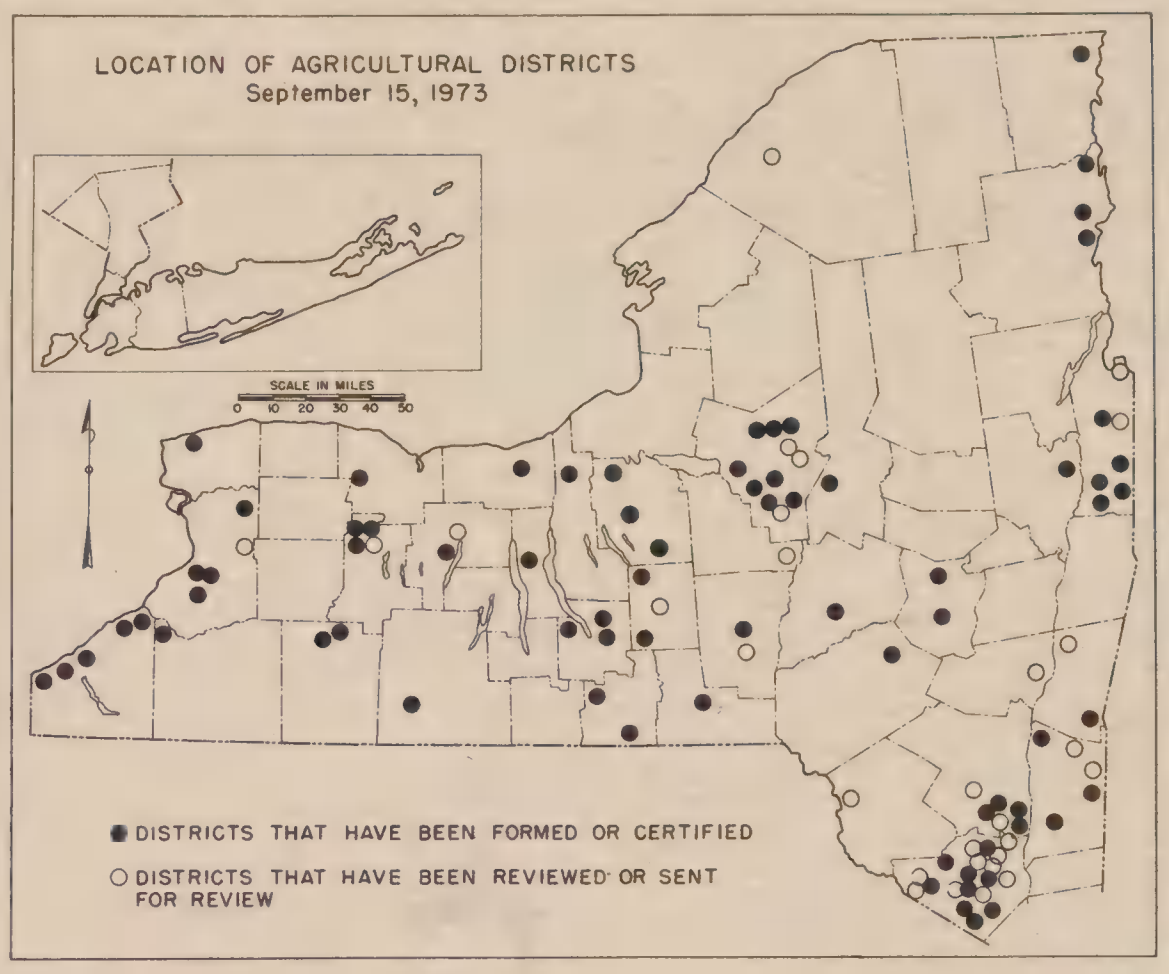
FLUID MILK SALES in New York State during the first half of 1973 were up 1.1 percent from comparable period in 1972.

FARMLAND PRICES will go up another 10 to 15 percent in 1974, predicts expert at American Bankers Association.

STOMACH WORMS affect most dairy herds, and there's evidence that it pays to clean 'em out periodically. Baymix crumbles can be topdressed on grain and no milk need be withheld from market. Another product, Tox-L-Ton, is given as a drench, and no milk need be withheld.

MOTTLED EGG YOLKS can be caused by use of cottonseed meal to replace soybean meal in poultry laying rations.

CAN MILK still accounts for 8 percent of the milk shipped in Order 2 (N.Y.-N.J.). Half of this comes from outside New York State. Practically all other northeastern milk order areas are 100-percent converted bulk tanks.



LOCATION OF AG DISTRICTS

In 1971, the New York State Legislature authorized the formation of agricultural districts in an effort to retain a viable agriculture in the Empire State. There are 888,861 acres officially included in such districts . . . or at some stage in the process of district formation. The largest district proposed so far is in Columbia County (52,000 acres) . . . with a 51,190-acre one in Livingston County close behind. The smallest so far is one containing 712 acres in Washington County, northeast of Albany.

Within these districts, agriculture is encouraged, and offered a means of protection as a part of official state policy. Taxpaying open space is retained as a fringe benefit of encouraging New York's agriculture which ranks it 16th among the 50 states in dollar volume.

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American Agriculturist

Pesticide go-round

by Earl Ainsworth

Dateline:

September 1972 – Migrant Legal Action Program, Inc., petitions OSHA (Occupational Safety and Health Administration) for emergency temporary standard regarding safety of pesticide use. Petition based on opinion by Georgia doctor that hundreds die from pesticide poisoning every year.

May 1973 – OSHA issues temporary emergency standard covering 21 pesticides used on seven crops. Order prescribes the number of days of waiting time before workers can legally reenter sprayed area. For most substances, reentry interval five days. Also prescribes heavy protective clothing, respirators . . . as well as written and oral warnings and evacuation measures for spray areas.

June 1973 – Word comes that May order scrapped, new one issued. List of pesticides cut from 21 to 12. Reentry intervals reduced; mostly from five to three days. Other conditions relaxed somewhat.

August 1973 – Word comes that OSHA scrapped June standard.

October 1973 – Ball passed to EPA (Environmental Protection Agency). EPA holds public hearings in Northeast. More to follow . . . . .

WHO says farmers can't communicate? Anyone at Albany attending the Environmental Protection Agency's first public hearing dropped that notion in a hurry! Cornell entomologist Jim Dewey and Anthony Moriello, executive assistant to the state's commissioner of agriculture, provided the professional punch needed to get the message across to a panel of EPA scientists. A team of the Northeast's most vocal fruit and vegetable producers backed them up with plenty of "use-experience," and left no question about their personal feelings on the matter while they were at it.

Speaking for the Department of Agriculture and Markets, Moriello minced no words as he stated his case. "We don't feel a national reentry standard is necessary," he said, pointing out that places like California and Arizona, due to their dry climate, may have a problem, but not the Northeast.

As proof, he cited six studies indicating negligible effects on workers from exposure due to pesticides, and emphasized the lack of "a single documented case of injury." Recognizing the potential danger, however, he enumerated a list of what the Department believes to be reasonable reentry intervals. In most cases, where OSHA had said three days the EPA five, New York State recommended one.

Agreeing with Moriello, Jim Dewey, 16 years a professor of toxicology and program leader of Cornell's Chemicals-Pesticides Program since its inception in 1964, concentrated on technical aspects of fruit and vegetable farming as they apply to pesticides, as well as the realities of the business.

Regarding reentry intervals, Dewey described voluntary standards presently used in New York which range from three days for parathion to one for TEPP. "Few, if any, reports of illness of workers have come to our attention as a result of reentry and contact with treated foliage," he said.

Dewey commented that the dark, nonporous, unwieldy protective clothing previously proposed offers more danger from heat stress than protection from toxic chemicals. He pointed out that lightweight protective clothing, although it falls short of maximum protection, would be more effective because it would be worn instead of discarded after the first ten minutes in the field. "We are not interested in regulations for the sake of regulations," he said.

Dewey set the record straight on another issue, too. It has been asserted by some social workers that the lack of documented cases of injury from pesticides was due to the

(Continued on page 15)



Jim Dewey

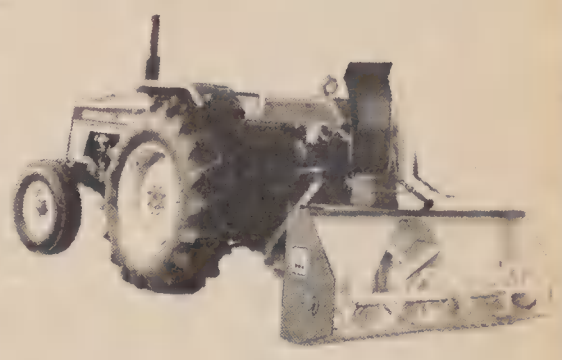


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April, 1842

One —

or Two



"That day in which we have not laughed is useless."

You may have an exact reproduction of the very first issue of American Agriculturist published in April, 1842. Each page was carefully photographed and then all 32 pages (9" × 6") offset printed on paper as nearly like the original as we could find.

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Dates to Remember

Dec. 12-15 - Annual Meeting American Society of Agricultural Engineers, Conrad Hilton Hotel, Chicago, Ill.

Dec. 18 - New York Agricultural Situation and Outlook Conference, Cornell University, Ithaca, N.Y.

Jan. 3 - Dairymen's Day, Morrisville Ag & Tech, Morrisville, N.Y.

Jan. 8-12 - Annual Meeting Northeastern Weed Science Society, Holiday Inn, 18th & Market Sts., Philadelphia, Pa.

Jan. 9 - Annual Meeting New York State Agricultural Society, Albany, N.Y.

Jan. 12 - 8th Annual Beef AI Conference, Denver Hilton Hotel, Denver, Colo.

Jan. 13-17 - Annual Meeting American Farm Bureau Federation, Convention Hall, Atlantic City, N.J.

Jan. 15-16 - Dairy Days, Cornell University, Ithaca, N.Y.

Jan. 17-18 - NYS Horticultural Society Meeting, War Memorial, Rochester, N.Y.

Jan. 21-24 - Regional Horticultural Meeting and Trade Show, Hunt Valley Inn, Hunt Valley, Md.

Jan. 22-23 - Annual Meeting Vegetable Growers Association of New Jersey, Holiday Inn, Vineland, N.J.

Jan. 22-24 - Vermont Farm Show, Barre Auditorium, Barre, Vt.

Jan. 24-25 - NYS Horticultural Society Meeting, Granit 2 Resort Hotel, Kerhonkson, N.Y.

Jan. 26 - New Jersey Beekeepers Association Annual Meeting, Trenton, N.J.

Jan. 26 - 17th Annual New Jersey Horse Industry Exhibit and Awards Dinner, Governor Morris Inn, Morristown, N.J.

Jan. 26-Feb. 2 - New Jersey Farmers Week, Trenton, N.J.

Jan. 29-Feb. 1 - 6th Annual Convention American Simmental Association, Fairgrounds, Louisville, Ky.

Feb. 14 - American Cranberry Growers Association Annual Winter Meeting, Concord Motel, Mt. Holly, N.J.

Feb. 19-21 - Processing Vegetable Conference, Batavia, N.Y.

Mar. 21 - Agricultural Leaders Forum, Alice Statler Auditorium, Cornell University, Ithaca, N.Y.



"The 'grace period'? That's when you pray that by the grace of God you can pay the next premium."

Pesticide . . . . .

(Continued from page 13)

worker's reluctance to report illness for fear of losing his job or for lack of money for doctor bills.

"It should be pointed out that for the last seven years in New York State there have been free clinics to which migrants could go without fear," Dewey testified. He also alluded to the fact that Office of Equal Opportunity (OEO) legal action groups are available and "are eager to find and pursue" cases of alleged injustice.

Then it was the farmers' turn to address the panel from EPA. "Gentlemen, where is the problem you're so concerned about?" That question came from Hudson, New York fruit grower John Hotaling, who reported that he had "never had a case of poisoning or even symptoms."

Labeling the proposed regulations as "asinine," Hotaling went on to state, "If it is your desire to reduce the food supply, you're certainly on the right track." He concluded by saying "You can't legislate common sense."

Art Burrell, a former professor in the pomology field at Cornell and now an apple farmer from Peru, New York, said he was "astounded that even though the record indicates no cases of injury," regulations are being considered "where there is no substantiated need."

Shoreham, Vermont's Allan Jackson, a reporter for a major radio and television network as well as a Champlain Valley apple producer, came down hard on the point that our tricky Northeast weather makes spray schedules a nip-and-tuck proposition. "If we are forced to delay two, three, four, or five days before reentry, we might **never** get back in the orchard," he emphasized. He added that according to the proposed standards, he would at times have to evacuate his own home, which is 30 feet from a block of trees.

Grapes

Representing the grape segment of the farming industry was Louis Cimasi of Portland, New York, who pointed out that the trend toward the type of trellising known as the "Geneva double curtain" demands more hand labor in "combing" and would suffer under the restrictive reentry standards. "We're always very careful," he remarked, "and we're well guided by our researchers."

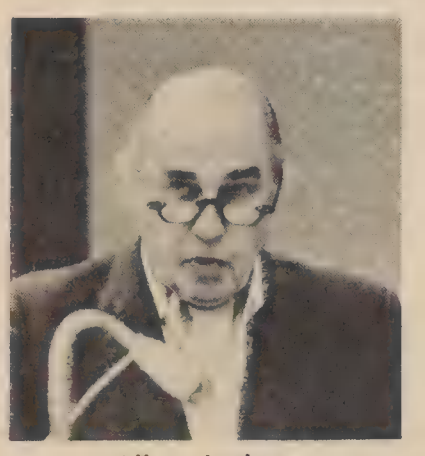
Several other New Yorkers made the trip to Albany and testified. Melvin Hurd from Clintondale said that on his 200-acre apple farm, "the atropine is still in the bottle," indicating that he has never had cause to use this antidote for pesticide poisoning. Ed Crist, an apple grower from Walden, complained that telling farmers to wear hot, heavy protective clothing in summer weather is "like telling an Eskimo to wear a bikini."

If the farmers seemed a bit irate, it is because they **were**. As several pointed out, the EPA hearing was scheduled during the peak of apple harvest, a fruit grower's busiest time of year. Nonetheless, many Northeast farmers found it necessary to "tell it like it is," at what some call the "interface of conflict between the farmer and the government."

Who is going to win? Those close to the industry see no need for these regulations, but as Jim Dewey said, "It looks like we're going to have them."



John Hotaling



Allan Jackson

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Signs of the times

by Doris Levy

Pick up nearly any newspaper these days and you are apt to be reminded of the days of Jesse James. Cattle rustling and bank robberies are making the headlines. Although train robberies are rare, we have a modern counterpart in airplane hijackings.

Another sign of the times is that people are sacrificing some of their modern conveniences in the interest of economy. More and more people are turning to wood-burning stoves, heaters, and even furnaces to save on fuel costs.

Housewives are finding that their grocery bills will not be so high if they avoid convenience foods and go back to preparing meals from scratch. Home gardens are more popular, taking us back to World War II days when victory gardens mushroomed as a result of food rationing. Many an old-timer likes to reminisce about the "good old days," and some of his grandchildren are getting a taste of what it was really like back then.

Rustling

Of most concern to farmers in some areas has been the rash of cattle rustling. Chickens and hogs have also been targets. According to reports we have received, areas hardest hit in New York State include the northern part of the state in the Watertown area, and central New York in such counties as Oneida, Herkimer, Madison, Oswego, Onondaga and Lewis. There may be others.

In Steuben County, New York, the County Farm Bureau met with law enforcement officials to develop a system of reporting suspicious occurrences. In Vermont, the Southern Windsor County Livestock Owners Association was formed to counter cattle rustling. In one southeastern Vermont community, 24 heifer calves were taken from a single farm.

Ed Slusarczyk, farm director of Station WIBX in Utica, New York, tells us that over 50 incidents of cattle rustling have been reported in that area during the past few months. He says about 30 calves alone have been taken.

The station has encouraged people in its listening area to report to the police suspicious-looking trucks and other possible clues, and numerous calls have resulted. WIBX continues to keep its listeners informed of rustling activities in the area.

Ed tells us that there has been a considerable amount of deer poaching in the southern Adirondack area, and sales of big game hunting licenses are on the increase. There appears to be a growing interest in obtaining deer meat, either by legal or illegal means.

Leonard Gilbert of Herkimer, New York, found where a six-month-old calf had been strung up in a tree and dressed out. Bernard Poplinski of Richfield Springs, New York, is missing five Holstein heifers which were about to freshen. They just disappeared without a trace.

Sheriff Clarence Woodard of Lewis County urged people to move their animals closer to their buildings where they could keep better track of them. Sometimes cattle necessarily must be pastured at some distance from the owner's main farm. In such cases, it could be days or weeks before any losses would be discovered.

Law enforcement agencies have been vigilant, but they do not have the personnel to maintain close watch over their entire jurisdictions. It should be emphasized here that any plans for surveillance by private individuals or groups should be coordinated closely with police authorities.

Sheriff Robert Howard of Tompkins County, past-president of the New York State Sheriffs' Association, tells us that there has been only one clear-cut case of cattle rustling reported to his office in recent months, and that was successfully prosecuted. He, too, indicates that deer poaching has increased in various parts of the state. We have been told that there has been a lot of it in Cattaraugus County. Sheriff Howard feels that incidents of cattle rustling should taper off somewhat with a decline in meat prices.

In some cases, the need for meat would appear to be immediate. We have heard that a group of young people in attendance at a Watkins Glen rock-music festival were found roasting a pig which apparently had been taken from the farmer on whose property they were camping. That's really living off the land!

Some farmers are offering rewards for information leading to the apprehension of rustlers who have stolen animals from them. Others, who had not previously carried cattle-theft insurance, are purchasing livestock floaters. The problem here is that they cannot collect if cattle just disappear. There must be some evidence of theft, as with the farmer who found the remains of a missing animal in an old shed on his property.

Reward Offer

Back in 1970, AMERICAN AGRICULTURIST salesman Locklin Norton delivered a $25.00 reward check to a subscriber in connection with a case of sheep rustling. Incidentally, Lock has again made the READER SERVICE column in this issue, where he is shown handing over a reward check in connection with a case of petit larceny.

Effective December 1, 1973, and until further notice, the AMERICAN AGRICULTURIST reward offer as it applies to thefts of cattle will be increased to $100.00. It will remain at $25.00 for other designated crimes against subscribers.

The reward is given to a person who provides evidence leading to the arrest, conviction and actual imprisonment for at least 30 days of anyone who steals livestock, poultry or other property from a subscriber; who sets fire to farm buildings belonging to a subscriber; or who defrauds or attempts to defraud a subscriber.

The reward does not necessarily go to the person against whom the crime is committed, and the recipient does not have to be a subscriber. Police officers are not eligible.

Claims must be made promptly to READER SERVICE, Box 370, Ithaca, New York 14850. The reward will not be paid in cases of thefts from stores or commercial concerns – only from farms or individuals.

It is hoped that increasing the reward as it applies to the theft of cattle will encourage readers to be even more alert for suspicious circumstances and to report any incidents immediately to local police agencies.

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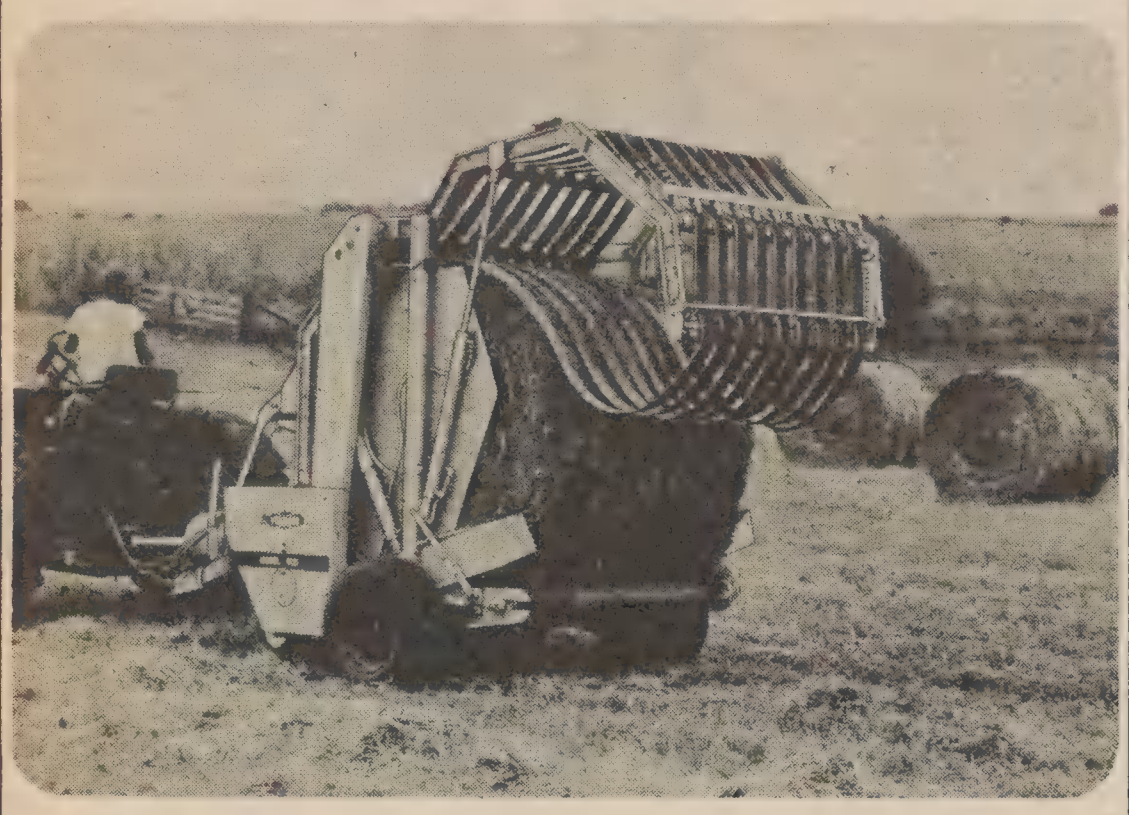
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ESTATE SETTLEMENT

The letter of Mrs. Frank Osterc about settlement of estates in a recent issue is intelligent and judicious. There is one serious error. She stated, "Your wife should have a bank account of her own that she can use to pay bills that will come up before your legal affairs are settled. . . ."

Outstanding bills of the deceased are claims against the estate. If there are heirs besides the widow, she will suffer the loss of any amount she pays out of her own personal account. There will be an added loss in the computation of income and estate taxes.

The usual procedure is for the attorney to set up a bank account in the name of the estate of the deceased. The executor will deposit incoming amounts, and pay bills out of this amount. — Dr. Rita Dielmann, Winfield, Kansas

Editor's note: Dr. Dielmann is correct that a widow should not pay from her own personal resources any debts that legitimately must be paid by the estate. However, many people have found it convenient to have a personal account in the widow's name so that she can buy groceries and purchase other day-to-day necessities until money is available through the executor of the estate.

LEGISLATIVE PREDICTION

Editor's note: Leland Beebe, public affairs director for the New York State Farm Bureau, responded as follows to a query about the likely major legislative battles in 1974 affecting farmers:

Reports indicate that United Farm Workers pickets worked in New York this fall, not to organize, but to enforce the boycott on grapes and lettuce. I also hear that they may be doing some groundwork leading to organization activities for next summer. If this is the case, then I would guess that the Agricultural Farm Labor Bill may become an important issue.

Legislation is sorely needed to transfer milk inspection from the Department of Health to the Department of Agriculture and Markets in order that reciprocal agreements may be made with other states in efforts to preserve milk markets for dairymen. This, of course, hit a snag last year, but is no less important because it did not pass.

I would expect, especially if Congress now comes up with a compromise minimum wage bill, that efforts of the state legislature to raise the state minimum wage (including the agricultural wage) would be a top-burner issue.

I am reasonably sure that the Labor Department will again make an effort to set a state OSHA program. Their efforts were unsuccessful last year. This seems to give the industrial commissioner unrealistic powers and authority. Farmers really question whether we need such a new state program. Arguments suggest that we might fare better with state control. To me, it does not add up since any state regulations would have to at least equal the federal.

Some type of land-use planning legislation seems sure to pass Congress this year. Such legislation would trigger efforts at the state level to accomplish comprehensive land-use planning. If this happens, landowners need to worry about the preservation of property rights and adequate payment for rights taken away from them by land-use planning. For farmers, this means development rights where applicable.

Farmers will have a tremendous stake in legislation relative to environmental concerns such as citizen's suits, a mining and land reclamation act, the flood plain management act, stream standards and so forth.

It really looks to me as though major concerns for agriculture during the next few months and years must be directed to administrative rules and regulations, both state and federal.

FOR ATHLETICS

Before becoming a full-time dairy farmer two years ago, I was a school teacher for seven years. During that time, I taught physical education, later became a guidance counselor for three years, and coached soccer for five years.

The two school systems in which I taught were regional-type schools in Massachusetts. Neither system had football (which usually pays for itself after the initial investment, I understand), and frankly the budgets were minimal. The coaching salaries were less than $5,000, and supply budgets fell in the same range. Money for officials and bus transportation came from gate receipts and a student athletic revolving fund which the entire student body supported with a magazine drive and other fund-raising activities.

The taxpayer dollar spent on athletics was a very minimal percentage of a two-million-dollar budget. Yet, I believe, the benefits were much more widespread than just to those directly involved.

I have seen the effect of a strong school and faculty spirit in classrooms . . . and I have also seen the opposite when we had a new superintendent who tried to eliminate athletics and generally implemented policies which encouraged individualism rather than a strong school spirit. The change (taking place over a two-year period) had a very devastating effect educationally.

While I was in physical education, we changed much of our curriculum to carry-over sports with a great deal of success. Yet, try as I might, I was never very successful with an intramural program. I definitely feel there was a much more beneficial effect on the school from interscholastic athletics rather than intramurals.

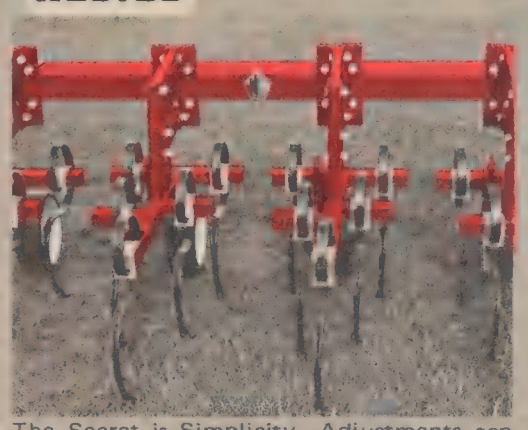
I feel the beneficial effects of interscholastic athletics on the participants, the school as a whole, and the communities in general far outweigh any possible savings by going to a total intramural program. — *Ronald Manley, Cummington, Massachusetts*

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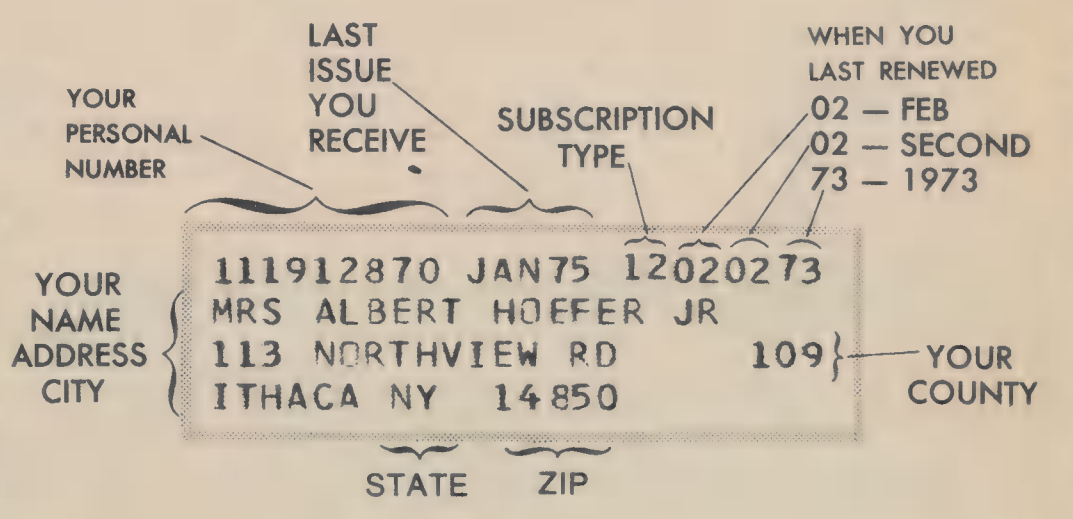
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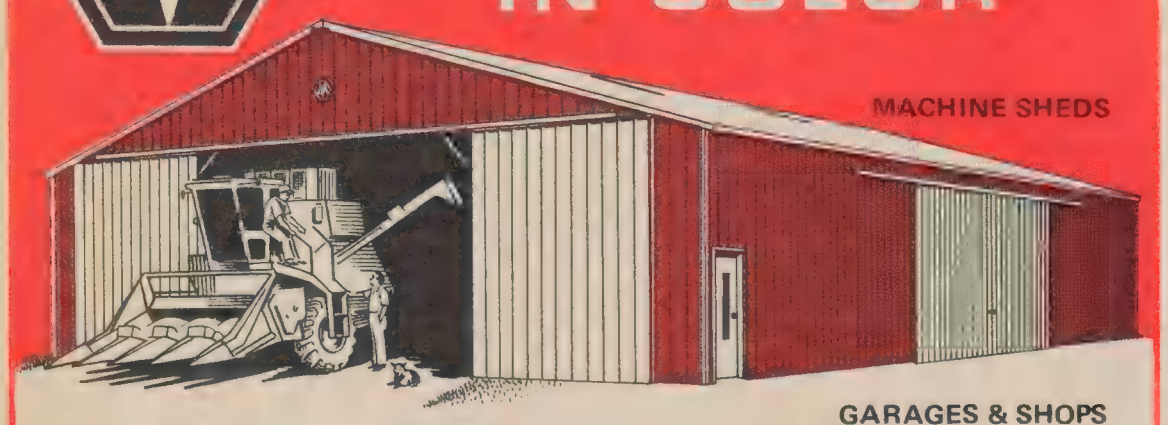
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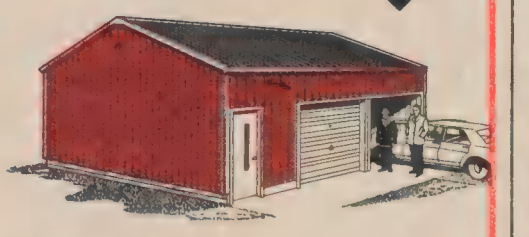
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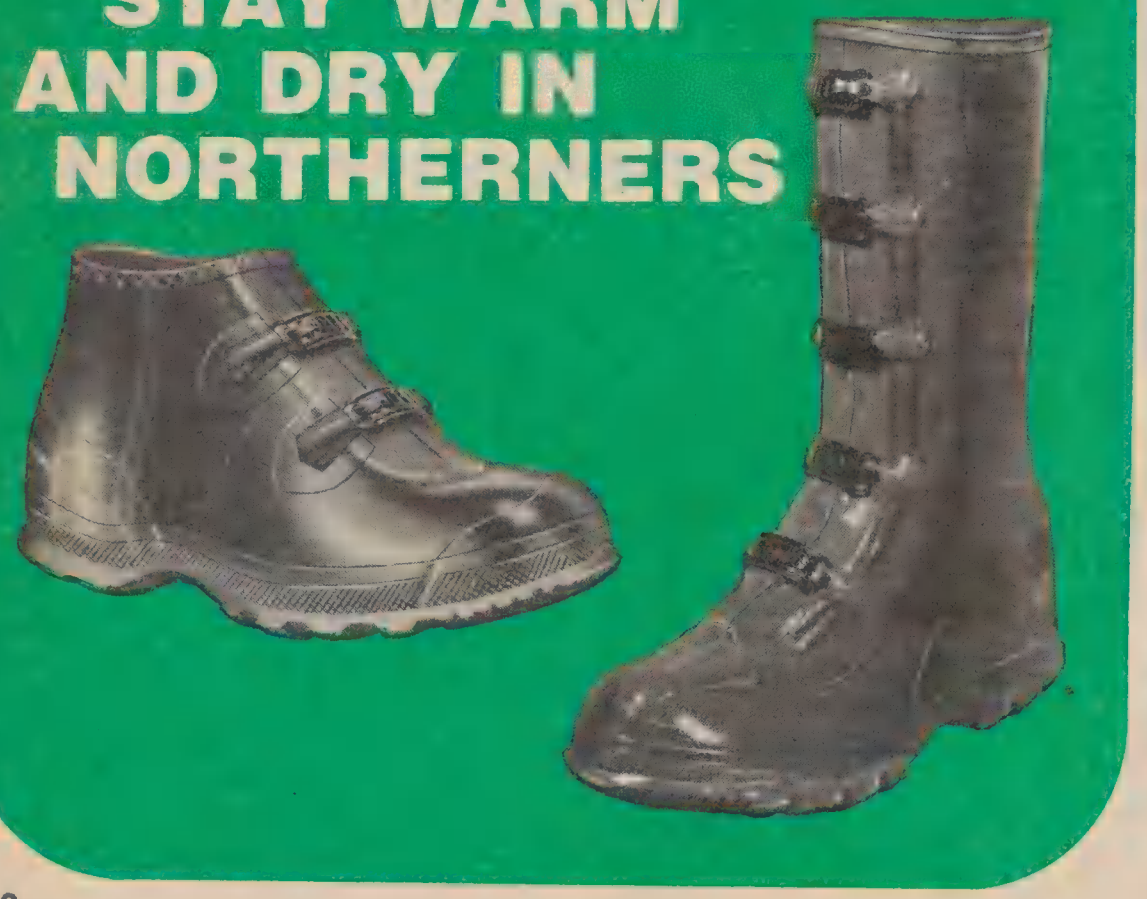
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What's NEW in the FIELD



by Bill Pardee

FERTILIZER SHORT

Order your fertilizer early, and take delivery as soon as you can. That's the advice we're hearing from the fertilizer industry. Supplies are short now, and they'll get tighter as the season progresses.

Meanwhile, agronomists urge careful planning of your fertilizer program to get the most from scarce supplies. This is not the year for overuse, poor timing or sloppy spreading. Mistakes that waste the high-priced stuff will be expensive, and will mean you and your neighbors will be that much shorter in supply before planting is done.

To put this in focus, we visited with Dr. Shaw Reid, Cornell agronomist and soil fertility specialist. He provided us with the following rundown on the supply situation, as well as tips for gaining top dollar return from scanty supplies.

Present outlook suggests that nitrogen supplies will be 2-5 percent below demand, and phosphorus at least 5 percent under spring needs. Potassium supplies should be adequate, but the prices up by 10 to 20 percent. These are overall estimates, and your local situation may vary widely depending on how well your local suppliers are able to stock up and get delivery.

Reasons

Reasons for shortages include unprecented demand combined with tight production capacity. One big factor nationally is the tremendous release of land from federal set-aside and retirement programs that freed 40 million acres for production this past year and could add 10-15 million more by next spring. Normal fertilization of crops on this recovered land would give a big boost to fertilizer use. But much of this land is marginal or low in fertility and will require larger than normal shots of plant food to get them going again.

High grain prices also stimulate higher fertilization rates. Extra bushels in yield pay off more than they did a few years ago . . . particularly over the vast wheat acreages of the Great Plains and far West, and these regions are already sucking up all the nitrogen they can get.

But nitrogen supplies would be tight even without these boosts in demand. Most of our nitrogen production uses large amounts of oil and/or natural gas. With the present energy crunch restricting the supply of these raw products, manufacturers may have to also cut back on the production of fertilizer nitrogen. Several companies that formerly served the Northeast have gone out of the business altogether, while others have restricted production and sales.

Urea supply will be most critical since manufacturers have been channeling most of their present production into feed-grade urea. Ammonium nitrate will also be short. Our best nitrogen supplies will be in liquid forms, due to better production and storage facilities available to the Northeast.

Phosphorus shortages stem more from overseas demand than from shortage of material. The price freeze on fertilizers caused phosphorus-producing companies to ship heavily abroad to higher-paying markets. The price freeze on fertilizers is now off, but advanced contracts have tied up most of this year's production so there will be little relief for U.S. markets this spring.

Phosphorus fertilizers on the short side will include mono-ammonium phosphate, and super and triple super phosphate.

Northeast phosphorus supplies will depend somewhat on spring weather elsewhere in the country. Excellent planting seasons in the South and Corn Belt could expand use in those areas and leave us even tighter in the Northeast.

Potassium supplies should be adequate, since the industry has plenty of productive capacity. You should be O.K. with this element . . . if you get delivery when you need it.

Transportation problems are adding to the shortage situation. Railroad service to the Northeast is inefficient at best. Car shortages and slow delivery seem the rule rather then the exception. And limited warehouse and storage capacity at terminals limit ability to stockpile fertilizer ahead of delivery. On-farm storage capacity is also short, so that most fertilizer must be delivered during the period of use. And that's tough to do in the rush of the planting season.!

Use It Wisely

Conserving fertilizer makes sense, not only because of the supply situation but because of the profit potential. Dr. Reid suggests the following steps to get maximum use from your fertilizer dollar:

Test your soil to find out what it needs. If every farmer tested his soil in every field this year, and used only those rates suggested for phosphorus level, we would have no shortage.

If the ground isn't frozen, there's still time to take soil tests before winter. If not, get them early in the spring. The sooner you get them in, the sooner you'll get results back from the laboratory so you can pin-

point your fertilizer plans.

Don't put on more than you actually need. Use recommended rates . . . or less. Overuse will cost you money and "short" your neighbor. Applying high rates to provide "insurance" against undetected deficiencies may have been O.K. in times of cheap fertilizer, but this doesn't make sense when fertilizer costs are high and supplies are short.

Spread your manure over as many acres as possible. Manure is an excellent source of nitrogen, potassium and phosphorus and contains a broad spectrum of minor elements. It still won't pay to cart it three miles down the road, but it's good stuff to have and should be spread over as much ground as possible. Figure 5 to 10 pounds of nitrogen and potassium, 4 to 5 pounds of phosphorus per ton. Ten to twenty tons of manure per acre can grow a good corn crop with little added nitrogen.

Liming becomes more important than ever on acid soils. By decreasing acidity, lime helps release nitrogen from soil organic matter and boosts the efficiency of applied phosphorus.

Time your fertilizer application to gain maximum efficiency of use. Generally, this means banding on phosphorus with the planter, and sidedressing nitrogen shortly after the corn plants have emerged.

Emergency

It is too early to predict just where and when emergencies will occur. But occur they did this fall in western wheat country, where slow fertilizer delivery held up planting, with lines of trucks forming in country towns as soon as word got out that a new fertilizer shipment had arrived. We'll be short too, come spring, and you may come up short at planting time. Dr. Reid suggests the following answers to questions we thought might arise.

What if I can't get enough phosphorus?

If phosphorus is short, don't plowdown any. Apply phosphorus only in the planter. This will take less fertilizer, yet gain maximum effectiveness and yields.

What if I can't get the fertilizer grade I want?

Certain grades **will** be missing. You'll just have to substitute other grades. Compute nitrogen, phosphorus and potassium components to get the nearest grade you can to meet your needs.

Can I use any phosphorus form in the planter?

Yes, but be careful when fertilizers made from di-ammonium phosphate (DAP) are used through the planter. DAP (18-46-0) can burn seedling roots. If DAP is the only form of phosphorus available, use it alone or with potash in the planter band and move the band at least 2 inches below and 3 inches to the side of the seed, then sidedress nitrogen later.

What if nitrogen is short at sidedressing time?

Best plan is to get equipped to hang loose. Be able to switch from dry to liquid forms and back, to use whatever is available. If worse comes to worst, you can wait for later delivery. Sidedressing helps most when corn is 6-15 inches tall, but you can get response until the crop is 3-4 feet tall.

How about plowing down nitrogen if I get early delivery?

Losses can be high from nitrogen plowed down, so avoid this where you can. However, if you do get early spring delivery and don't have storage capacity you can plow some down. Be sure to limit this to well-drained fields. Losses are least under such situations, but can be heavy (up to 100 percent of the applied nitrogen) in poorly-drained or waterlogged soils. Do not apply nitrogen in the fall for spring-planted crops. Chances of loss are too great.

Can I cut back on phosphorus and nitrogen in forage seedings?

Yes, in some cases, Recently, several Northeast experiment stations have recommended high phosphorus rates at planting to provide sufficient phosphorus to last the crop for several years. They suggest that you **not** follow this practice this spring, but use only enough in the planter band to get the forage crop up and going. Here again, use soil testing, with careful attention to recommended rates.

Don't waste nitrogen on alfalfa or birdsfoot trefoil seedings. This rarely brings a response and makes poor sense in a nitrogen-short year.

How about topdressing older forage stands?

You can also vary your topdressing practices. Soil tests can help you pinpoint the precise amounts you need. If your soil shows medium or high phosphorus, you might use only potassium for this year.

Or, if you prefer, you can delay topdressing until after the second cut. This will spread your timing and give you better chance of getting delivery. Likewise, if you have manured the field you probably have enough phosphorus for your stand and can get away with using only potassium. But don't skip topdressing. It's still the key to high production and long-lived, vigorous stands.

Order Early

The fertilizer crunch is **real**, and those who order early will be most likely to get what they need. Check with your local suppliers, and start making arrangements now. This is also a good year to take soil tests from **all** the fields you plan to fertilize, to be sure you're putting on enough, but **not too much.**

The protector

Chemists work for years to develop materials to kill weeds . . . but sometimes, under certain conditions, the weed-killer goes to work on the **crop** as well as the weeds! This being the case, the test-tube boys have been searching for appropriate antidotes to gentle down some herbicides to make 'em safe for crops.

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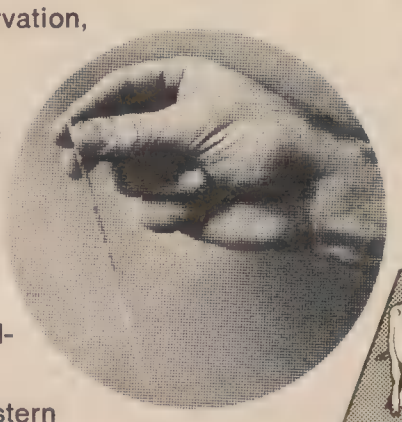
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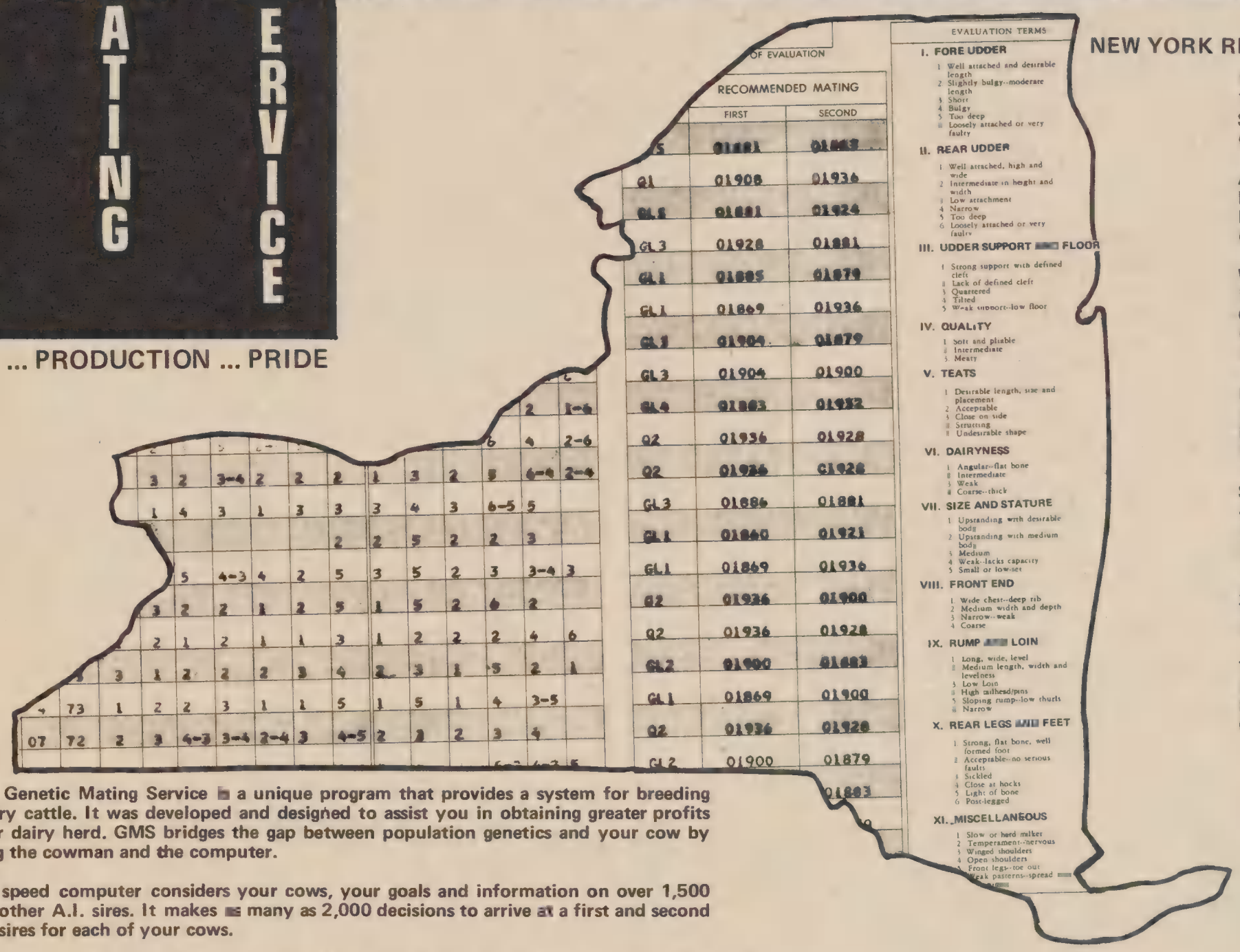
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The ABS Genetic Mating Service is a unique program that provides a system for breeding better dairy cattle. It was developed and designed to assist you in obtaining greater profits from your dairy herd. GMS bridges the gap between population genetics and your cow by combining the cowman and the computer.

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Publishing and closing dates

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VIRGINIA LIVESTOCK, DAIRY farms, country estates and residential properties. Specific or ideal requirements needed for reply. No catalog. Browning Real Estate Agency, Box 112, Culpeper, Va. 22701.

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FARMS—FINGER LAKES AREA — All types and size farms. Retirement homes — hunting land. Lakeshore properties. H. M. Stocking, Broker, Dundee, New York 14837.

FARMS—DAIRY, BEEF, sheep, cash crop, vineyard—all sizes. Business, cottages. J. R. Allen, Realtor, Dundee, N.Y. 607/292-3180.

FARMS - FINGER LAKES AREA. 100-400 acres, dairy, poultry, beef, crop. New listings regularly. Residential, commercial, land, lake properties. Accepting new listings now. Coleman Real Estate, Trumansburg, N.Y. 14886. 607/387-4793 anytime.

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NEW YORK STATE Dairy Farms, all sizes in most areas - stocked or bare. Tell me your needs. Write: Chas. J. Graham Real Estate, 114 N. Woodland Dr., Liverpool, N.Y. 13088. Phone 315/457-3380.

ALBANY, N.Y. AREA - 225 acres of fertile soil, 3 houses, 2 large barns, 100 ties, drilled well, barn cleaner, bulk tank - bare farm $170,000. Also 35 acres with 3-bedroom house, 2 barns, pond, drilled well, 25 ties - $49,500. 65% mortgage available. Also 80 acres vacant with old barn poor condition, ½ mile hard road frontage. Want to sell whole parcel for $525.00 per acre - do not want to divide. Wilber, Broker, Delanson, N.Y. 12053. 518/895-2385.

CAYUGA COUNTY - 230 acres, 150 tillable, 50-cow barn, pipeline, bulk tank, gutter cleaner, 2 silos. Good 3 bedroom house. Excellent water supply, $66,000. 250 acres, 70-cow barn, cleaner, pipeline, bulk tank, 3 silos, modernized home, excellent water supply, $120,000. 5-acre mini-farm, new veal calf barn, farm pond, large 5 bedroom, modernized house, $30,000. Ralph Real Estate, 147 Genesee St., Auburn, N.Y. 13021. Phone 315/253-6278.

DELAWARE COUNTY - 600 acre showplace, four residences, 76-tie stall barn, 4 silos. $425,000, or will sell complete. Oneida County - 64 acre farm near Thruway exit. Perfect condition, 7-room home, 32 tie barn, storage barn. Heifer boarding income. $55,500. Montgomery County - 240 acre farm, 4½ miles frontage city edge. 71-cow pipeline barn. Two-family home. $148,500 bare, $214,500 stocked, equipped. St. Lawrence County - 390 acres, 40 stanchion barn. 8-room home. Plus other home and barn. $66,000. With cows, equipment, $143,000. Wimple Realtors, Sloansville, N.Y. 12160. Phone 518/875-6355. Dairy farms in 9 counties.

LARGE SELECTION of dairy properties, both stocked and bare. 900 acre, 375 tillable, 136 stanchions, silos, excellent machinery, 116 head, an excellent price of $210,000 complete - available bare, open to offers. 398 acres, bare with basic machinery, over 225 tillable, beautiful large meadows, 60 stanchions, lovely home, $77,000. 119 tillable acres, good barn, 13 room home, desirable area, $44,000. 148 acres, two silos, 57 stanchions, 65 head, machinery, good eight-room home, level land, complete $95,000. 409 acres, 340 tillable, 63 ties, 101 head, machinery including 3 tractors, machine shed, heifer barn, storage barn, four bedroom home, excellent area, $160,000, open to offers. For the discriminating family - beautiful 1826 Colonial home overlooking river leading into lake, excellent 60 stanchion barn, large silo, 58 milkers and all machinery, miscellaneous buildings, excellent location, $195,000, $56,000 down with terms. Many more in all sizes and price ranges. Brisson Real Estate, RD #2, Massena, N.Y. 13662. 315/769-9387 or 315/764-0896.

CENTRAL NEW YORK and Finger Lakes Area farms - all types, sizes, 50-1,000 acres. Dairy and cash crop. Many owner financed. Try us. Mal-Tut Real Estate, 9 Court St., Auburn, N.Y. 13021. Phone 315/253-3813.

SOUTHERN PA. - Several dairy farms from 100 to 1,000 acres. Van Cleve Real Estate, New Oxford, Pa. 17350. Phone 717/624-8201.

FARMS FOR SALE

FARMS FOR SALE - Numerous dairy farms, stocked and equipped acreages varying from 100-525. Many bare farms also available. Several farms with lake and river frontage. Located in the St. Lawrence Valley region. Call collect for terms: 315/265-3740. F. L. or W. J. Murray, Licensed Real Estate Salesmen for W. D. Krebs, Licensed Real Estate Broker, P.O. Box 8, Potsdam, New York 13676.

150 TILLABLE ACRES, good 45-cow farm, 2 silos. 4-bedroom house furnished. 550 gal. bulk tank, dumping station, barn cleaner, full line machinery. Silos full of silage and seven thousand bales of hay. 25 cows and 24 heifers. Second barn 20 stalls and silo. 800 ft. river frontage. Very good cropland and buildings, good location. All for $70,000 cash. Box 369-FL, Ithaca, N.Y. 14850.

LEWIS COUNTY, NEW YORK Dairy Farms. Over 300 acres, approx. 175 tillable, over 100 free stalls, parlor, bulk tank, automatic feeders, 2 silos with unloaders, ponds, sugar bush, approx. 100 head of milkers and complete line of equipment. Excellent 5 bedroom, 2-bath home. Beautiful view. 220 acres, half tillable, 33 stanchion barn, 28 head and good machinery, excellent 5 bedroom, 1-bath home, spring water, some woods. Contact the "Farm Specialist" for your real estate needs. Farm Specialist Realty, Inc., 1116 Arsenal St., Watertown, N.Y. 13601. 315/782-2270 or 315/397-2356 in Constableville, N.Y.

NEW YORK STATE FARMS! 244 acre dairy farm, 144 tillable, very good 76-cow barn, pipeline, two 50′ silos, large machinery shed, corn crib, very good 9-room home, very good large mobile home, alfalfa land. $130,000 bare, $190,000 with 76 milkers, 30 head of young stock, equipment. 310 acres, 120 tillable, 120 pasture, 36x180 barn, 3 silos, bulk tank, barn cleaner, hay dryer, good 9-room home, hay and silage. $100,000. 240 acres, 125 tillable, honeoye silt loam soil, excellent 70-cow barn, good four bedroom home, two silos, barn cleaner, mow conveyor, 800 gal. bulk tank, $100,000. Call Richard E. Posson, Lic. R. E. Broker, R.D. #3, Norwich, N.Y. 13815. 607/334-9727.

FARMS FOR SALE - Wayne, Cayuga, Seneca Counties - muckland, upland, fruit or dairy. When farm hunting contact Farmer Don. Don Holdridge Realty, Red Creek, New York 13143. 315/754-8150 or 315/947-5357.

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FOR SALE: Eighty-eight acres: good hunting, recreation or farming land in Cameron, N.Y., Erwin Road, electric line. Contact: E. M. Shaul, 33 College St., Binghamton, N.Y. 13905.

FOR SALE: FARM. Saranac, N.Y. 115 acres. Pastureland, meadows, 2 streams. Small farmhouse in need of repairs. Excellent location. Majestic view. $23,000.00. Leo E. Maggy. Dannemora, N.Y. 12929. 518/492-7178 (after 10:00 P.M.) 518/492-7130 Bus.

TOP CONDITION DAIRY Farm - Mohawk Valley. 393 acres, large percent tillable. Known as one of the best in Montgomery County. Outstanding ten room house in mint condition - 4 bedrooms, 2 baths. New in-ground pool. Good barn - 92 stanchions, pipeline, 1,000 gal. tank, 3 concrete silos - 16x50, 20x60, 24x70, all with unloaders. Belt feeder 160 feet. Other equipment and out-buildings for storage and convenience. $250,000 bare. Phone Sherrill Hufcut at 914/343-1108 or write Barmann's Realty Sales, Inc., at R.D. #4, Middletown, New York 10940.

FREE CATALOG. Listings described in our catalog have been selected from the wide assortment in our files. They represent a cross section of values in New England and New York, and they are described in conservative terms with detail enough to give you a clear mental picture. A few words about special needs, price, etc., may prove helpful. Four Effs, Box 264AA, Manchester, N.H. 03105. (Representatives wanted.)

FARMS FOR SALE

WESTERN NEW YORK: 183 acres, about 100 acres Chenango gravel. 86 tie stalls in main barn, second barn for dry or young stock, buildings excellent condition, remodeled 4-bedroom house. Price $110,000 bare. We also have several conventional farms with stock and tools and several free stall farms from 139 acres to 1,050 acres for sale. For details call or write Lester N. Fuller, Broker, Riceville Road, West Valley, New York 14171. Phone 716/942-6636.

FERTILE ACRES

225 ACRE FARM in the heart of Honeoye region of Cayuga County. Nice Colonial house with 9 rooms, 1½ baths, 2-car attached garage. 140 free stalls, 30x60 and 26x60 silos. Located one mile from Poplar Ridge, New York.

Richard W. Ellis, Aurora, N.Y. 13026

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LOWER COLUMBIA COUNTY, rich alfalfa soil, Connecticut market, 350 acres, reasonable. 914-698-0400.

FARMS WANTED

WANTED ALL KINDS OF FARMS, vacant land and timber lots. New York and Pennsylvania locations. W. W. Werts, Real Estate, Johnson City, New York 13790.

QUALIFIED BUYERS WAITING - dairy farms, others. Wimple, Realtors, Sloansville, N.Y. 12160. 518/875-6355.

WANTED: FARMS, ACREAGE in New England. Top price paid. Send details, price: H. Brower, 20 Wachusett Road, Chestnut Hill, Mass. 02167. Phone 617/969-3461.

DAIRY FARM LISTINGS wanted. We always need farm listings, especially free stalls. We are experienced in farm selling and will call on you. Call collect - Brandow Real Estate Corp., Stamford, N.Y. 12167. 607/652-3193 or 607/547-8218.

WANTED - ALL KINDS of country properties priced to sell. Also, what have you for exchange? Write or phone, or see Paul N. Boughton, Realtor, 1½ Dolson Ave., Middletown, N.Y. 10940. Phone 914/343-2783.

WANTED - DAIRY FARM to rent. Room for 40-60 milkers plus young stock. Send details to: Richard Benson, RD #2, Boonville, New York 13309.

WANTED VACANT LAND or timber lot by private buyer, must have mountain views and be within 125 miles of New York City and realistically priced. Will pay cash. Reply to: Leonard Marinaccio, 1650 Ohm Ave., New York, N.Y. 10465.

WANTED TO RENT: 35-40 cow farm to young dairyman. Last attempt burned to ground. Write John K. Sweetman, 17 Colonial Road, Midland Park, N.J. 07432.

WANTED: HOUSE, BARN and acreage suitable for boys' home. Please write: Box 369-FM, Ithaca, N.Y. 14850.

SELLING YOUR FARM? Contact us for exclusive farm brokerage service in all areas. Chas. J. Graham Real Estate, Liverpool, N.Y. 13088. Phone 315/457-3380.

WE NEED ALL type farms. We specialize in farm sales and have waiting buyers! Call Richard E. Posson Real Estate, RD #3, Norwich, N.Y. 13815. 607/334-9727.

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ALFALFA-TIMOTHY HAY delivered anywhere. Russell's Hay Service, Box 71, East Durham, N.Y. 12423. Phone 518/634-2591.

ALL TYPES HAY and straw. Good horse hay. Alfred Cobb, Box 24, RD #1, Waterloo, N.Y. 13165. 315/789-2660.

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MALE - APPRENTICE TRAINER. Train dogs and instruct the blind in their use. Three year apprenticeship program. Permanent position with excellent employee benefits. Starting salary dependent on education and experience. Driver's license required. Write Box 369-EF, Ithaca, N.Y. 14850.

FARM HELP WANTED - experienced all-around man for a dairy farm. All phases of general farm work; including cows, machinery, truck. House available. References required. I. Greenberg & Son, Rt. 206, Mt. Holley, N.J. 08060. Phone 609/267-1101.

PROFESSIONAL A.I. TECHNICIAN—Eastern is looking for qualified men who want a challenging agricultural career providing an important and needed service to dairymen in the Northeast. The job offers working out-of-doors with farm people, above average income, liberal benefits, and transportation. Write or call: Eastern A.I. Coop., Inc., Box 518, Ithaca, New York 14850. Phone (607) 272-3660.

SALESMAN WANTED - Unlimited opportunity for ambitious man to call on stockmen and dairymen selling well known products of high quality. The company is well established and has been in business for over 20 years. Selling experience and knowledge of livestock an advantage. However, this job would be very suitable for an active retired farmer. Must have suitable transportation. Work on full time basis - there is no limit to earning power in this sales position. Fringe benefits carried include Life Insurance, Hospitalization Insurance. Worth looking into! For full particulars, write to Personnel Mgr., Box 29, Waverly, New York 14892.

TEXAS REFINERY CORP. offers opportunity for high income plus cash bonuses, convention trips and fringe benefits to mature individual in your area. Regardless of experience, air mail V. A. Pate, Pres., Texas Refinery Corp., Box 711, Fort Worth, Texas 76101.

DAIRY FARMER needs boy over 16 to help. Room, board, prevailing wages. Experience not necessary; interest in farming essential. Andrew Cherniske, New Preston, Connecticut 06777. Phone 203/868-2710.

RETIRED COUPLE - full or part-time work. Man: farming and caretaking. Woman: occasional housework. Own 6 room apartment. Send resume to Box 655, Far Hills, N.J. 07931.

WANTED: GENTLEMAN, middle-aged non-drinker, non-smoker, share nice home, help manage widow's small rural estate. P.O. Box 423, Middletown, N.Y. 10940.



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"I live with nature, walk in green fields under the golden sunlight, out in the great alone, where brain and brawn and toil supply mankind's primary needs; and I try to do my humble part to carry out the great plan of God.

"Even the birds are my companion; they greet me with a symphony at the new day's dawn and chum with me until the evening prayer is said. If it were not for me, the treasures of the earth would remain securely locked; the granaries would be useless frames; man himself would be doomed speedily to extinction or decay."

— Anonymous

We are farm real estate brokers looking for modern dairy set ups to accommodate from 35 to 100 cows - both stanchion and free stall barns. What do you have to offer within 250 miles of New York?
Call Zar Benedict at (914) 343-1108 or write

BARMANN'S REALTY SALES, INC.
R.D. #4, Middletown, New York 10940

HELP WANTED

WANTED - SKILLED single lady desiring farm life and farm partnership. Box 369-FK, Ithaca, N.Y. 14850.

WANTED: MIDDLE-AGED WOMAN for general housework on a farm, two in the family. S. W. Reynolds, R.D. #1, Reynolds Road, Shelburne Falls, Mass. 01370. Phone 413/625-5674.

SALES UNLIMITED - opportunity for ambitious men to call on dealers selling farm equipment wholesale. Send complete resume to Box 369-FH, Ithaca, N.Y. 14850.

EXCELLENT OPPORTUNITY for married man with small family to work with top registered Holstein herd in New Jersey. Must be experienced with pipeline milking. Good working conditions with house, utilities and insurance furnished. Letter of application should include references and phone number. Marlu Farm, Lincroft, N.J. 07738. Phone 201/741-1920.

INTERESTED IN single young man, over 25, work into management of fruit - 300 acre small fruit, grape, livestock farm. Prefer some college background but not essential. Send resume and recent snapshot. Box 369-FG, Ithaca, N.Y. 14850.

NEEDED-HERDSMAN for 1,000 head beef feed lot. Top salary offered and living privileges. Write, Box 131, Ellicottville, N.Y. 14731.



HARRY ENNIS, Sales mgr. says — American Agriculturist has openings for qualified men as full time field representative - salesman. Guaranteed income, training program and exclusive territory available. Send me your resume.

Box 100, Ithaca, N.Y. 14850

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EXTRACTED HONEY - Clover, Fallflower or Buckwheat. 5 lbs. $4.10; three 5's $11.00; six 5's $21.00; one 60 $36.00. Postpaid to 3rd zone. We use stainless steel extractors and tanks. Lang Apiaries, Box A, 8448 N.Y. Rt. 77, Gasport, N.Y. 14067.

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NEW & USED EQUIPMENT

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2 CASE 1-ROW CORN PICKERS, $495.00. Massey 2-row SP, $1195.00. A-C90 2-row, $1695.00. IHC-205 with 2-row and grain head, $4695.00. One Papec grinder mixer, 1 year old, $1295.00. IHC grinder mixer, 1 yr. old, $1295.00. A-C gleaner 2-row corn head, $3295.00. 100 crawlers and wheel tractors. 30 acres equipment - all size spreaders. Don Howard, Canandaigua, N.Y. 14424. 315/394-3413.

ASHLEY THERMOSTATIC HEATERS (sold out). Orders will now be taken for 1974 delivery. Harkey's Equipment Company, Mont Vernon, N.H. 03057.

FOR SALE: 8 ft. snow plow, suitable for truck or tractor. Like new 914/297-2333.

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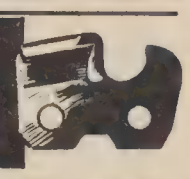
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Add 85¢ for shipping. For COD send $2.00 deposit

Be sure to give saw name, model, bar cutting length, pitch used or number of drive links in chain. Send check or money order to:

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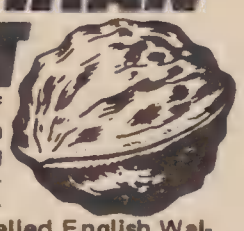
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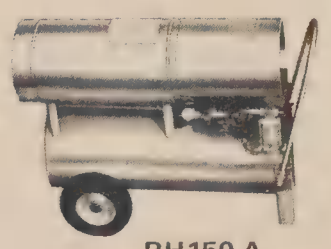
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Gifts From Your Kitchen

by Charlotte Bruce

Over the years, it has become a tradition for us to exchange little gifts of goodies with our friends and neighbors at Holiday time. Because kitchen activity intensifies in mid-December, it is good to plan these gifts so the work can be done when it is most convenient for the cook.

Several years ago we gave our friends yeast coffee cakes and planned to deliver them on Christmas Eve. Alas, several other cook-friends also did coffee cakes that year, so we were all "over-coffee caked." I decided then and there to either get my gifts out earlier if they were perishable, or to think in terms of foods that could be used at the recipient's convenience.

Of course baked items can be frozen, but it is always fun to dig in right away. Another point to remember about day-before-Christmas baking is that it is usually a well filled day, without the task of baking gifts.

In general, it is more efficient to make the same thing for everyone to whom you give food gifts, since the shopping and preparation can be done more quickly. It helps to plan ahead as to how and when these gifts can be packaged and delivered.

It is wise to keep in mind the size of household to which the gift will go when determining the amount or size of the food gift. A huge stollen is a generous gift, but maybe three small ones would be better to give a single person or a couple. Then there is a fresh one to use immediately and more to store away.

Too often we think our food gifts must be something super-elegant or rich or lavishly decorated, but in fact people appreciate receiving those things you do well — a loaf of homemade bread (particularly if they don't do yeast baking), jams, jellies or pickles from last summer's harvest, or a package or two of frozen fruit if they haven't a freezer.

People cooking for one or two enjoy those things they might not bother with for such a small family. An elderly person might not make fresh cranberry relish and would enjoy a container of this to brighten the Holiday meals. Salad dressings are another idea for friends who watch their calories.

Now for some recipes you might consider making as gifts or for good eating at home. Sherried nuts are simple to make and can be done ahead of time. They can be packaged in an attractive re-cycled jar or an inexpensive container from the dime store. Both Sherried Nuts and the Date Balls are confections, but the date balls can be made a bit larger and used for a cooky. For cookies, I would make balls about the size of an English walnut.

SHERRIED NUTS

½ cup brown sugar, packed
¼ teaspoon salt
¼ cup sherry
2 tablespoons light corn syrup
3 cups nut halves
Granulated sugar

Blend brown sugar, salt, sherry and corn syrup. Stir in nut halves until well coated. Drop nut halves into granulated sugar and roll them around until they have absorbed as much sugar as possible. Place on waxed paper on large cooky sheet to dry. Store tightly covered.



Photo: Fleischmann's Yeast

Probably no gift from your kitchen has more appeal than something baked with yeast. Shown here are Ribbon Rye Rolls, Egg Braid and Marmalade Kringle. The recipe for Marmalade Kringle is given; all recipes are in Fleischmann's "Bake-it-easy Yeast Book."

DATE BALLS

5 tablespoons butter or margarine
1½ cups dates, cut fine
1 cup sugar
2 eggs, beaten
2½ cups Rice Krispies
1 teaspoon vanilla
Pinch salt
½ cup flaked coconut

Melt butter in skillet. Add dates, sugar and beaten eggs, stirring constantly. Cook until thick. Stir in remaining ingredients. Form into balls and roll in crushed Rice Krispies. Don't use any of the 2½ cups of Rice Krispies for this. Store in refrigerator.

Pleasing Cheese Gifts

If you wish to make a tasty gift that is not sweet, try these Cheese Sticks. A flavorful cheese ball is also an excellent gift, and it is good to have made ahead for entertaining or family snacks at home.

CHEESE STICKS

1 lb. cheese (sharp Cheddar)
¼ lb. butter or margarine
⅛ teaspoon red pepper
1 teaspoon salt
2 cups flour (maybe more)

Cream butter and grated cheese. Add salt, pepper and flour. Put through cooky press, using small star disc. Bake at 350° for 10 minutes. Makes a lot.

WINSOR CHEESE BALL

¼ lb. bleu cheese
¾ lb. Cheddar cheese
½ lb. Swiss cheese
1 clove garlic
2 teaspoons Worcestershire sauce
2 tablespoons mayonnaise

Put cheese and garlic through meat grinder, using medium knife and making sure cheese is cold. Add Worcestershire sauce and mayonnaise and combine thoroughly. Shape into balls of any size.

If you are using the ball immediately, it can be decorated with chopped parsley. If it is to be a gift, roll it in chopped nuts. Wrap in clear plastic and store in refrigerator. Serve at room temperature with saltines.

Always Welcome

Cranberry Orange Relish is an old favorite. As mentioned before, it makes an excellent gift for a small household, and it's a good thing for children to make for a person they wish to remember at Holiday time. The youngsters can really do the whole operation, and their pride and pleasure in making the gift add to the joy of the season.

CRANBERRY ORANGE RELISH

4 cups cranberries (1 bag or carton)
2 oranges, quartered and seeded
2 apples, cored only
2 cups sugar
1 cup chopped nuts, optional

Put raw cranberries, apples and oranges through food chopper. Add sugar and mix well. Chill in refrigerator a few hours before serving. Makes 1 quart relish, which will keep well in the refrigerator for several weeks and can also be frozen.

Gifts From The Oven

It wouldn't be Christmas without the appetizing smell of breads baking. This pumpkin bread is a good one to bake ahead and freeze. Using toy bread pans, you can make several kinds of nut breads and present a variety as gifts. The slices cut from the loaves baked in tiny pans are just the right size for tea sandwiches.

PUMPKIN BREAD

1½ cups sugar
½ cup salad oil
2 eggs
1 cup pumpkin
⅓ cup water
1¾ cups flour
1 teaspoon baking soda
½ teaspoon cloves
½ teaspoon cinnamon
½ teaspoon allspice
¼ teaspoon salt
¼ teaspoon baking powder
½ cup nut meats
½ cup chopped dates or raisins (optional)

Beat together sugar, oil and eggs. Stir in pumpkin and water. Then add remaining ingredients. Mix well and turn into greased loaf pan and bake at 350°F. one hour or longer, until it tests done.

This recipe for **Marmalade Kringle** is taken from Fleischmann's "Bake-it-easy Yeast Book." Other fillings are equally good, such as one made with prunes or dates. Canned pie fillings can also be used, but are so liquid that the resulting kringle must be eaten with a fork.

MARMALADE KRINGLE
(Makes 2 cakes)

⅔ cup warm water (105° to 115° F.)
2 packages active dry yeast
1 cup warm milk (105° to 115° F.)
½ cup sugar
1½ teaspoons salt
¼ cup (½ stick) margarine, softened
2 eggs
5 to 6 cups unsifted flour
2 cups marmalade
Salad oil
Confectioners' sugar frosting

Measure warm water into large warm bowl. Sprinkle in yeast and stir until dissolved. Add warm milk, sugar, salt, margarine and eggs. Stir in 3 cups flour. Beat vigorously with wooden spoon until smooth (150 strokes).

Add enough additional flour to make a soft dough. Turn out onto lightly floured board and knead until smooth and elastic, about 8 to 10 minutes. Cover with plastic wrap, then a towel. Let rest 20 minutes.

Divide dough into 4 equal pieces. Roll each piece into a 9×13-inch or 10×15-inch rectangle on a lightly floured board. Place one layer of dough in bottom of greased 9×13-inch or 10×15-inch pan. Spread with 1 cup marmalade. Top with another layer of dough. Repeat with remaining layers of dough and marmalade to make second cake. Brush with salad oil. Cover pans loosely with plastic wrap. Refrigerate 2 to 24 hours.

When ready to bake, remove from refrigerator. Uncover dough carefully. Let stand uncovered 10 minutes at room temperature. Puncture any gas bubbles which may have formed with a greased toothpick or metal skewer.

Bake at 375° F. 20 to 25 minutes, or until done. Remove from pan immediately after baking. Glaze with confectioners' sugar frosting. If desired, decorate with candied fruits.

Cookies are a must at Christmas, and most of us have special ones that

(Continued on page 30)

Mrs. Wilfred Miller



Pictured are co-directors of the Chocolate Cake Contest and winners present at State Grange Session in Cortland. Left to right are Home Editor Augusta Chapman, Mrs. Alta Chase, Mrs. Robert Amidon, Mrs. Marion Zorn, Mrs. Wilfred Miller, Mrs. Fenton Wagar, Mrs. June Town and Mrs. Richard Pilc, Sr., chairman of State Grange Service & Hospitality Committee.

In winning the 1973 Chocolate Cake Contest, I believe Mrs. Wilfred Miller of Pendleton Grange in Niagara County may have set a record for the 38 years that AMERICAN AGRICULTURIST and New York State Grange have co-sponsored baking contests. In 1964, Mrs. Miller was first-place winner in the Yeast Coffee Cake Contest; in 1968, she won second prize for doughnuts, and now another first for chocolate cake!

As the No. 1 winner in the contest, Mrs. Miller had her pick of the nine grand prizes and chose the $200 cash award, a gift from **Agway, Inc.** She will also receive $20.00 from AMERICAN AGRICULTURIST and the $3.00 entry prize which State Grange gives each county winner who enters the state finals.

Each of the top ten winners received the following grocery prizes: A case of Blue Boy vegetables from **Curtice-Burns Foods** and a case of assorted Ritter products from the **Ritter Division of Curtice-Burns;** a Treasure Chest Dairylea Cheese assortment from **Dairylea Coorperative Inc.;** a gift package of Hershey products from **Hershey Foods Corporation** and four boxes of Sterling Table Salt from **International Salt Company.**

Mrs. Miller lives on the outskirts of Lockport and is also active in other community organizations besides the Grange. She has been a 4-H leader for 19 consecutive years, and the Millers were honored as the 1973 "4-H Family of the Year" in Niagara County. What good training the 4-H girls around Lockport are getting, and we'll look for future Grange baking contest winners from this group!

Winner No. 2

The second-place winner was found to be Mrs. Marion Zorn from Owego in Tioga County. From the other eight available grand prizes, Mrs. Zorn selected the Anscomatic 236 XF Electric Eye Camera, awarded by **GAF Corporation.** She will receive $15.00 in cash from AMERICAN AGRICULTURIST, $3.00 from State Grange, and the grocery gifts listed above.

A Grange member for 30 years, Mrs. Zorn has entered many baking contests. She said she was sputtering about the cake going to Pomona competition, and her husband said, "Well, you won't have to make another one!" But her cake was judged best of the eight there, and she advanced to the finals.

Third-place Winner

Mrs. Fenton Wagar of Penn Yan Grange in Yates County was declared the No. 3 winner. Mrs. Wagar lived on a farm in Yates County most of her life, moving to the village of Penn Yan after her husband's death three years ago. During those years on the farm and while raising their seven children, Mrs. Wagar baked hundreds of chocolate cakes.

The cake that went to State Grange Session was baked Saturday morning before she went to help prepare dinner for 100 square dancers that evening. She said, "I took a look at the crack in the top and expected my cake to be 50th!"

Mrs. Wagar's grand prize was the Singer Portable Sewing Machine, a gift from **New York State Grange.** She also received $14.00 in cash and the grocery prizes.

Another Experienced Baker

Onondaga County's Mrs. Robert Amidon, a member of LaFayette Grange, was winner No. 4. Mrs. Amidon also has seven children, so has done a heap of baking. She has lived on a dairy farm for 23 years but has only been a Grange member the last two years.

Mrs. Amidon said she used to read about the baking contests in AMERICAN AGRICULTURIST and think that when she was a Granger she would enter. It certainly didn't take her long to become a winner after joining Grange!

The Singer Powermaster Cleaner, also a gift from **State Grange,** went to Mrs. Amidon, along with $11.00 in cash and the groceries.



Mrs. Wilfred Miller, Winner No. 1, chose as her grand prize the $200 cash award, a gift from Agway Inc.

Second-place winner, Mrs. Marion Zorn, selected the Anscomatic Camera Kit which was given by GAF Corporation.

Wins Electric Range

It was hard for 5th-place winner, Mrs. June Town, to realize that she had received her first choice of grand prizes, the beautiful Monarch Electric Range. "You're kidding! I just can't believe it," she shrieked when I phoned her; an uproar in the background indicated her family had learned the news! Mrs. Town is a member of Kennedy Grange in Chautauqua County, and the range is a gift from **Monarch Range Company.**

Mrs. Town baked two cakes after church on Sunday and brought the second one to the finals. Another 4-H leader, having served for 21 years, she is also a long-time Grange member. In 1963, Mrs. Town's daughter, Linda, placed second in the Gingerbread Contest.

6th and 7th-Place Winners

Mrs. Frances Gibbs from Washington County was winner No. 6. She wanted very much to come to State Grange but, living almost on the Vermont border, thought it was too long a trip. We sent home to her the lovely chest of Community silver which had been given by **Oneida Ltd. Silversmiths.**

Experiences of the No. 7 winner, Mrs. Alta Chase of Otsego County, prove it is possible to overcome handicaps that arise and still be a winner. I asked her how many cakes she made, and she replied, "Just one! That's all I had time to do! I baked it, put it in the freezer and left for the Bahamas. State Ceres Mrs. Roger All, took it to Cortland for me. I got home about two hours

Three Times A Winner!

by Augusta Chapman, Home Editor



Winner No. 3 was Mrs. Fenton Wagar. She took home the Singer Portable Sewing Machine, a gift from State Grange.

25 TOP WINNERS

1. Mrs. Wilfred Miller, Pendleton Grange, Niagara County
2. Mrs. Marion Zorn, Tioga Grange, Tioga County
3. Mrs. Fenton Wagar, Penn Yan Grange, Yates County
4. Mrs. Robert Amidon, LaFayette Grange, Onondaga County
5. Mrs. June Town, Kennedy Grange, Chautauqua County
6. Mrs. Frances Gibbs, North Granville Grange, Washington County
7. Mrs. Alta Chase, Worcester Grange, Otsego County
8. Mrs. Marion Griswold, South Cortland Grange, Cortland County
9. Mrs. Mary Lou Hubbard, Cottage Grange, Cattaraugus County
10. Mrs. Robert Cromie, Milton Grange, Saratoga County
11. Mrs. Catherine Kampnich, Adirondack Grange, Lewis County
12. Mrs. Stuart Preston, Lee Grange, Oneida County
13. Mrs. Mabel Bellinger, Rock District Grange, Schoharie County
14. Mrs. Ruth Stahl, East Fayette Grange, Seneca County
15. Mrs. Harry DeVeau, Sound Avenue Grange, Suffolk County
16. Mrs. George Slingerland, Freys Bush Grange, Montgomery County
17. Mrs. Mabel Miller, Chemung Grange, Chemung County
18. Mrs. Emma Years, Mendon Grange, Monroe County
19. Mrs. Viola Gray, Wawayanda Grange, Orange County
20. Mrs. Harold Hahn, Gifford Grange, Schenectady County
21. Mrs. Hedwig Baxter, West Chazy Grange, Clinton County
22. Mrs. Marion Martin, Mexico Grange, Oswego County
23. Mrs. Carolyn Graves, Cuba Grange, Allegany County
24. Mrs. Stanley Waldron, Stafford Grange, Genesee County
25. Mrs. Doris Irving, Ravena Grange, Albany County

Another gift from State Grange, the Singer Powermaster Cleaner, was awarded Mrs. Robert Amidon, the 4th-place winner.





Mrs. June Town, Winner No. 5, and her husband are shown with the "Jet-Fan" Convection Oven Electric Range which was a gift from Monarch Range Company.



Mrs. Frances Gibbs, Winner No. 6, admires the Community silver which was given her by Oneida Ltd. Silversmiths.



The chrome Mixmaster Mixer, given by International Multifoods, was won by Mrs. Alta Chase, Winner No. 7.

before you called me!"

And to make matters worse, Mrs. Chase's oven went on strike, and she had to bake her cake at a neighbor's apartment. Of course, I have to admit that most of us would be willing to struggle with the problem of a trip to the Bahamas!

Mrs. Chase's grand prize was the chrome Mixmaster Mixer, awarded by **International Multifoods.**

Winners No. 8 and 9

With State Grange being held in Cortland, I assumed it would be a cinch for Mrs. Marion Griswold, Cortland County's winner, to come for announcement of the winners on Tuesday morning. I was disappointed that previous commitments made it impossible for her to attend. The Regal Poly Urn, a gift from **International Salt Company**, was Mrs. Griswold's grand prize, as the 8th-place winner.

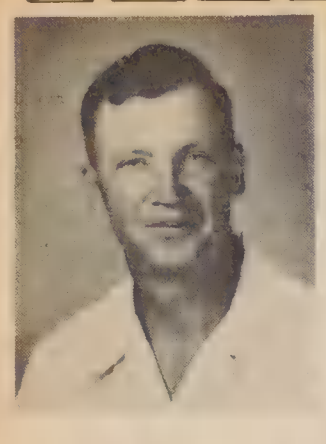
Mrs. Mary Lou Hubbard, a member of Cottage Grange in Cattaraugus County, was winner No. 9. Her grand prize was the 4-piece Community Coffee Service, presented by the **National Grange Mutual Insurance Company.**

Judges and Contest Directors

Three home economists worked six hours judging the 52 cakes entered in the state finals. We sincerely appreciate the excellent job they did and their hard work in tasting and scoring each cake individually.

Judges were Mrs. Esther Twenty-man, Homer, New York, Director of the Art & Home Center at New York State Fair; Mrs. Frances Armstrong, also from Homer and a County Leader for 4-H Extension, and Mrs. Betsy Young, Cortland, a former Home Demonstration Agent.

Mrs. Richard Pilc, Sr., of Cowlesville, New York, chairman of the State Grange Service & Hospitality Committee, and I were Co-Directors of the Chocolate Cake Contest for the state. Two other members of the State Committee — Mrs. Howard Clute of Schenectady and Mrs. Leslie Hoffman from Barton — helped us, as well as hundreds of Pomona and Subordinate Service and Hospitality Committee members.



Farm News, Notes and Nonsense

by Harold Hawley,
Weedsport, New York

CHANGES NEEDED

Early in American history, a high percentage of our people were farmers and most of the rest were not very far removed from the land. Land was abundant and cheap, population density low, and fish and game relatively plentiful.

We had largely inherited from English law the concept that game belonged to the state. Actually, the Crown gave land to titled persons and they became the masters of the land with all rights, including fish and game, accruing to them. But in the early stages of this country, the question of who owned the wildlife was largely academic. There was no great conflict of interests.

As time elapsed, population increased and became more urban, game became less plentiful, and season and bag limits were established to preserve a breeding nucleus each year. Even then, there were no serious problems between landowners and those who wanted to harvest the game or use the other recreational resources of the open countryside.

In more recent years, however, with farm people in New York State down to about 1½ percent of the population, it has become apparent that there needs to be some re-thinking about our trespass laws, and perhaps about the concept of who owns the game.

Invasion

The invasion of rural areas by non-farm people involves more than just hunters and fishermen. It includes horsebackers, snowmobilers, trail-bikers, hikers, and so on and on. Then, of course, there is the occasional motorist who helps himself to a little farm produce that happens to be growing along the road or back where a bit of thievery is not easily observed!

In spite of repeated suggestions from various individuals and groups, the number of people who ask permission to enter one's property for whatever reason is amazingly small. Over the last several years, I doubt that more than three or four per year have asked us before they entered our lands.

Most who come to use the outdoors are responsible people and pose no problem. Others abuse the privilege and spoil the deal for everyone. We are increasingly annoyed at the youngsters on horseback and on trail bikes who either don't realize their potential for damage or don't care.

At any rate, they are among the causes of more and more posted signs around the countryside. In fairness, it must be said that (at least in our area) the increase in non-farm rural residents results in far more posted signs. **Urban people who come to the country seem far less tolerant of invasion than their farm neighbors.**

We feel that posting is not the answer. It's too expensive and time-consuming for a farmer to have to do this every fall, especially when no enforcement is possible if signs get pulled down and the property is not legally posted. Posting of properties also seems to lead all would-be trespassers to conclude that **any unposted** land is open to use, with or without permission.

We believe the law should read that privately-owned land may be presumed to be posted, and can be entered upon for recreational use only with consent of the owners or tenants. This would remove the need to post, and hopefully would do away with the notion that if no signs are visible, everybody's welcome.

Under this arrangement, those who wish to let people on their land can do so. Those who don't would be freed of the necessity to post or chase off unwelcome visitors. Making game the property of the landowner just like any other crop or livestock produced on his farm (subject, of course, to seasons and bag limits) would make it more easily understood by all that no one is to take the game without permission, any more than they would take a heifer or a bushel of apples.

Some say this will lead to farmers selling the right to hunt. Many already are. I see no harm in this. Folks expect to pay for the other recreation they enjoy, be it golf, bowling, or even the use of a state park.

PATH TO STAGNATION

Once upon a long time ago, so they say, someone suggested to the town fathers that a canal be built through their valley. They said it would mean cheaper freight for their cheese, wheat and wool, and might lower the price of their supplies. The fathers said "yea" . . . so it was done, and progress followed.

Later it was suggested that an improved road would be better than the old trail. "So be it," they said, and built a plank road to keep vehicles out of the mud. All were happy at the easier, cheaper flow of goods and services.

Still later, a railroad was proposed. Most greeted the new venture with enthusiasm, figuring it would benefit nearly everyone. Likewise, when some later-day dreamer proposed an airstrip for the community the idea received general support and the airport was built.

Someone scratched around and found some coal. All rejoiced at the new fuel source and at the jobs the mines created. When oil-drilling operations were successful, they rejoiced once more.

Being a perceptive people, they could see the advantages of electricity over kerosene for lighting and over steam for power, and therefore gave their blessing and support to the new power plant. Industry followed and the economy prospered — no longer a strictly agrarian, more or less self-sufficient economy, but a diversified agricultural, industrial, service type of society with many individuals becoming specialized, doing what they did best and at the most profit.

Still later, this society, being optimistic and forward-looking, teamed up to send some of their adventuresome youth on a long trip to outer space . . . clear to the moon, it's rumored . . . with the notion that the knowledge gained would ultimately benefit all.

During all these years, the people had been well-fed and multiplying like mad. As they became more crowded, they became more concerned about their environment. Most had been trying to improve their environmental situations all along, but it now became almost a passion to weigh each new proposal less on its merit than on its possible ecological impact.

Too Risky

So when a nuclear power plant was proposed to ease the power shortage, all the grandchildren looked at each other and agreed they did need one, but couldn't it be built **someplace else?** "Too risky and with possible ecological impact we can't foresee; let's look at the alternatives." And so it came to pass that procrastination replaced the power plant.

When more oil supplies were needed to keep a prosperous society booming, more offshore drilling was proposed. Lo, a loud cry went forth through all the land: "Too risky; we'll have no more drilling in our ocean." Many were also strongly opposed to a pipeline to bring in oil from a far northern land because there might be undesirable results. Progress began to wither and die on the vine.

Now, as always, a few people favored change and improvement. One such fellow proposed a new jet airport to add to the existing air facilities. Again the people assembled together and came up with a long and formidable list of objections. "Too noisy, too much pollution, too much good land taken out of production. Besides, do we really need it?" And nothing was done.

Next, some "scheming politician" pointed out the need for a superhighway. Folks banded together and shot that one down, too. "Not through here," they said in a unified voice. "Once our good farmland is paved, it's gone forever. Besides, the environmental impact study isn't all that convincing." So while they fought and argued (and the lawyers waxed fat), another opportunity knocked in vain.

We'd be the first to agree that not all proposals have equal merit and all should be carefully examined. May as well 'fess up, too, that we breathe easier when the proposals involve **someone else's** back forty instead of ours. Likewise, we will fight right along with the rest to try to get highways built where they do the least damage to agriculture, and we'll resist airports on our better land — but that's different than resisting **all** change and progress.

If we need roads, airports, mines, oil, dams, power plants or whatever, don't we all have some responsibility as citizens to be something other than just negative? Let's fairly and objectively weigh the facts and alternatives, sift out the panic, hysteria, prejudice and propaganda, and try to support some reasonable, positive position.

If we aren't willing and able to do this, we will so undermine and emasculate progress that we will live to see our great nation stagnate and become a second-rate society with a declining standard of living. It's inconceivable to me that we can't make wise decisions that will lead to progress and at the same time provide reasonable protection to the environment.

SILO FIRES

Too often a silo filled or partly filled with haylage either catches on fire or chars away to partially ruin the feed. These tragedies occur both in regular concrete silos and in sealed-storage structures.

Spontaneous combustion in haymows is not all that new; we don't normally expect it in silos, but it can happen. If not enough oxygen is present to cause an actual fire or explosion, some charring or caramelizing can occur if conditions are right.

Another consideration is more important. Opening up a silo (especially a sealed-storage unit) to get at a fire can cause a terrific explosion as the air rushes in. Use of water and foam may split the silo staves if they are really hot. I don't know whether the foam will harm the feed, but would certainly want to check before feeding it.

Going into the silo after a fire has its hazards, too. Gases from the fire may linger. If a hole has been burned beneath the surface of the feed, a person could suddenly find himself up to his ears in hot haylage! Certainly there should be another man in the chute ready to pull out the person who went into the silo (hopefully with a rope around him).

There is a difference of opinion on the value of sealing off a silo once it has been afire. It seems reasonable that keeping air out as much as possible might help to prevent a second fire. This doesn't always work, however. Even with good attempts to seal off the haylage with plastic or with new silage, second and third fires have occurred.

Assuming reasonably-moist haylage to be safest, putting it into the silo that way seems to be the best approach.

Speaking of insurance, this is another aspect of this whole problem. Almost no one carries insurance on his silo, or its contents, or the machinery therein. A silo fire can ruin hundreds, even thousands of dollars worth of feed. It can also burn the doors, blast off the roof, or maybe only ruin the silo unloader. In any event, it may be worthwhile to think about the property involved and cover part of it with insurance.

American Agriculturist, December, 1973

READER SERVICE



READER SERVICE CLAIMS SETTLED

NEW YORK

Mrs. Irvin LaPier, West Chazy
Refund on order $11.83
Mr. Raymond Franklin, Portland
Refund on seeds 39.00
Mr. George Moses, Valatie
Refund of premium 44.63
Mrs. Chester Garey, Hammondsport
Charge cancelled 2.82
Mrs. Richard Rossman, Canaan
Refund on book 9.25
Mr. Dayton Douglass, Canajoharie
Overpayment refund 11.20
Mrs. Leonard Moore, Fort Ann
Refund on merchandise 181.89
Mrs. Myron Lehman, Lowville
Balance of refund 50.00
Mr. Bruce Fuller, Angelica
Refund on order 32.50

PENNSYLVANIA

Mr. J. R. Lane, Huntington
Refund on order 15.00
Mrs. Mabel Swan, Galeton
Account cleared 14.32
Mrs. Frank Nader Sr., Cochranton
Refund on order 9.98

NEW HAMPSHIRE

Mrs. Eva Batchelder, Hampton
Refund on order 11.94

MASSACHUSETTS

Mrs. Carroll Rich, Pepperell
Refund on plants 22.91

BOX TOPS

A premium offer accomplishes several things. It helps to promote the sale of a product, it provides a profitable enterprise for a mailing firm, and it often causes participants considerable frustration.

When the response is heavy, mailings tend to bog down. At that point, Mrs. Housewife questions why a well-known firm should stoop to such penny-ante tactics to "rob" her of a buck or two – especially when she bought more than she really needed in order to get enough box tops.

She writes a letter. It is ignored. She may not realize that her letter went to an independent firm whose only connection with the "name" company is filling premium orders. When she comes to us, we contact the manufacturer directly, giving him the dubious honor of making it right with the customer.

We might add a postscript. We know a lady who waited several months for an attractive stainless steel serving dish for the oblong tubs of her favorite spread. About a month later, the producer switched to round tubs. Talk about frustration!!

WHERE ARE THEY?

Fifty-eight refund checks, ranging in amounts from $4.55 to $1,149.78, are being held as undeliverable by the Office of the New York State Attorney General in connection with an alleged price-fixing conspiracy involving five drug companies between 1954 and 1966.

A total of 4,057 consumer claims were validated and approved in New York State. Checks were mailed in December 1972. Following is a partial list of persons still unlocated whose last-known addresses are in our reading area. If you know the present whereabouts of any of these people, please notify READER SERVICE, Box 370, Ithaca, New York 14850.

NEW YORK

Neal R. Abron, Briarcliff Manor
Abraham Azoulay, Valley Stream
Martin Bernstein, Coram
H. Brock, Port Washington
Bogart Carlaw, Chappaqua
Susan Dimartino, Syosset
William Edney, Roosevelt
W. D. Eisenhower, E. Northport
Mrs. C. Famulare, Deer Park
John Frascella, N. Merrick
Mrs. Agnes C. Gallopini, Rockville Centre
A. H. Gapsch, Pelham
Frances Gerstein, Plainview
M. Goell, Scarsdale
S. M. Gordon, Mohegan Lake
Walter Hays, Plainview
Irene Kaufman, Howard Beach
Family Mackiefar, Hauppauge
Mrs. Tom Malinish, Monsey
Elizabeth Manber, Farmingdale
Mrs. H. T. Metz, Freeport
John Mulle, Plainview
Mrs. Pat Nemeroff, Wantagh
Helen Norman, Long Beach
Renee Opperman, Spring Valley
Charles Piliero, Amityville
Mrs. Ann Rubenstein, Scarsdale
Numan L. Scott, Islip
Mrs. Bruce M. Smith, Great Neck
Helene Smith, Binghamton
Myrna Tarkan, Monsey
Laura S. Timer, Binghamton
Mrs. Edward Tragler, Tarrytown
George Weisenberg, Fresh Meadow
Donald Weiss, Wading River
Ethel Woodring, Springville
Irving W. Woolf, Woodmere
Genevieve M. Young, Baldwin

MAINE

Susan K. Frady, New Bedford

CONNECTICUT

Howard Sinnett, E. Hartford

MARYLAND

DeForest M. Peterson, Potomac

PENNSYLVANIA

Earland Sandstrom, Springfield



AMERICAN AGRICULTURIST salesman Locklin Norton is presenting a reward check to Mrs. Harold Whitney of Batavia, New York. Mrs. Whitney provided New York State Police with information which led to the arrest and conviction on charges of petit larceny of two youths who broke into her home and stole several items. Judge Charles W. Barrett, in Special Sessions Court, sentenced one of the young men to Elmira Reformatory and gave the other one a conditional discharge.

Fell Asleep at The Wheel

Eighteen year old Robert Dubois of Shoreham, Vermont was but minutes from home when his car sped off the road and crashed into a tree. Robert suffered cuts, bruises and a fractured hip. He spent thirty-six days in the hospital and many weeks at home laid up unable to work the family farm.



Carrying several North American policies Robert received benefits totaling $2208.56 from local agent Mark Prindle of Charlotte, Vt. Part of Robert's note of thanks reads,

"The money will come in handy for the bills. The thought of knowing I was insured made it a lot better."

BENEFITS PAID

A friend's name may be in this list.

Dale Wolfer, Fillmore, N.Y. ..... $ 327.65
Motorbike accident—cut face
Gladys Dillenbeck, Johnson City, N.Y. 137.14
Fell off stool—broke toe
Delphin Tingue, Delevan, N.Y. 3408.61
Ran over by tractor—broke pelvis
Norman Tingue, Jr., Franklinville, N.Y. 1041.09
Caught under loader—broke foot
Paul Benham, Auburn, N.Y. 251.42
Kicked by cow—injured leg
Cosmo Trippe, Fredonia, N.Y. 994.28
Operating saw—cut hand
Russell G. Joy, Fredonia, N.Y. 201.57
Fell off bicycle—inj. hand
Walter Hartman, Sr., Elmira, N.Y. 2280.00
Caught in PTO—broke ankle
Frank Hofmann, Oxford, N.Y. 634.83
Fell from hay wagon—broke rib
Lawrence Parker, Champlain, N.Y. 124.28
Horse reared, pulled rope—cut hand
Harmon Kinney, Blodgett Mills, N.Y. 200.00
Caught in PTO—inj. leg
James Smith, Delhi, N.Y. 635.53
Knocked down by cow—broke arm
Elizabeth Mattice, Hobart, N.Y. 975.78
Bike skidded on gravel—inj. arm, leg
Nancy Smith, East Concord, N.Y. 1305.00
Roller skating—broke ankle
Ruth Phillips, Wattsburg, Pa. 324.92
Stepped in hole—broke wrist
James Johnston, Burke, N.Y. 496.30
Truck accident—broke nose
Dewitt Gros, Jr., Johnstown, N.Y. 2220.18
Auto accident—inj. back
Harold Smith, Jr., Corfu, N.Y. 389.28
Slipped on trailer—inj. leg
Ann Shoemaker, Westkill, N.Y. 207.14
Auto accident—whiplash injury
Francis Goutremout, Poland, N.Y. 1295.00
Changing tire—inj. foot
James Lamphere, Jordanville, N.Y. 404.08
Fell off horse—injured leg
John Basar, Jr., Adams, N.Y. 1400.00
Elevator dropped—broke feet
Charles Boni, Carthage, N.Y. 222.85
Fell down ladder—broke heel
Peter Phalen, Copenhagen, N.Y. 906.11
Auto accident—head injury
Duane Moshier, Croghan, N.Y. 1228.18
Gored by bull—inj. abdomen
Marion Bezer, Lowville, N.Y. 379.45
Fell on ramp—broke arm
Howard Marshall, Avon, N.Y. 188.56
Attacked by bull—inj. leg
Hugh Wratten, N. Brookfield, N.Y. 428.57
Fell off tractor—broke leg
Steven Judd, DeRuyter, N.Y. 585.07
Running & fell—injured hand
Jasper Howlett, West Henrietta, N.Y. 383.57
Caught in machine—inj. arm
Herbert Moyer, Fort Plain, N.Y. 302.86
Walked into pipe—inj. head
L. Lederhouse, Ransomville, N.Y. 246.42
Tripped over shoelace—broke wrist

Edgar Lewis, Camden, N.Y. ..... $ 781.05
Getting on tractor—inj. foot
Alice Sanborn, Cleveland, N.Y. 1190.00
Bicycle accident—broke knee
Robert Carl, LaFayette, N.Y. 1287.28
Caught in silo chain—cut hand
Daniel Baker, Liverpool, N.Y. 583.07
Went thru glass door—cut arm
Ernest Laursen, Geneva, N.Y. 278.31
Kicked by cow—broke hand
Melvin Buckland, Albion, N.Y. 1070.00
Stepped in hole—inj. knee
Douglas Potter, West Monroe, N.Y. 373.00
Wrestling, fell—broke elbow
Michael Frost, Worcester, N.Y. 1367.14
Motorcycle accident—inj. hip
D. Goodale, Richford Sprgs., N.Y. 276.25
Slid into base—broke tooth
Arthur Walrath, Johnsonville, N.Y. 1185.72
Caught in pulley—inj. hand
Dennis Lantry, Helena, N.Y. 690.86
Hit by hayfork—broke jaw
Ralph Hynes, Heuvelton, N.Y. 1643.56
Knocked down by cow—broke ankle
Gladys Kendle, Schoharie, N.Y. 525.72
Tripped over stool—inj. ankle
Rene Richtmyer, Watkins Glen, N.Y. 364.57
Auto accident—inj. neck
Eugene Wargo, Interlaken, N.Y. 135.60
Pushed by hog into ramp—inj. elbow
Roy Elliott, Campbell, N.Y. 241.41
Thrown from horse—inj. knee
Martin Cornish, Hammondsport, N.Y. 1024.06
Adjusting tractor blade—inj. hand
Ann Latham, Orient, N.Y. 1098.57
Hand went through window—cut wrist
Wm. Rosenberger, Owego, N.Y. 1398.38
Beam fell—inj. shoulder
Marian Austin, Freeville, N.Y. 874.50
Fell over hassock—inj. leg
William Scofield, Lake Luzerne, N.Y. 105.00
Ground caved in—broke knee
Elsie Tearney, Clyde, N.Y. 569.88
Chair collapsed—injured neck
Richard Shove, Sodus, N.Y. 1157.29
Auto accident—multiple injuries
Bernard Becker, North Java, N.Y. 218.16
Hydraulic hitch dropped—broke toe
W. Brunelle, Granville Summit, Pa. .. 145.72
Horse reared—inj. neck
Ronald Zaborowski, Wattsburg, Pa. 304.00
Dragged by cow—broke collarbone
Raymond Grant, New Egypt, N.J. 539.75
Fell off ladder—broke arm
W. Earl Reed, Phillipsburg, N.J. 1332.86
Kicked by horse—internal injury
Curtis Ruppert, G. Barrington, Mass. 780.84
Auto accident—head injury
Charles Sylvester, Greene, Me. 1034.00
Hit by board—injured leg
Robert DuBois, Shoreham, Vt. 2208.56
Auto accident—broke hip
Percy Mack, Vergennes, Vt. 1105.00
Carrying hay, slipped—inj. back

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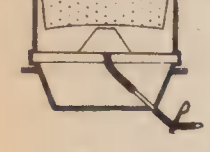
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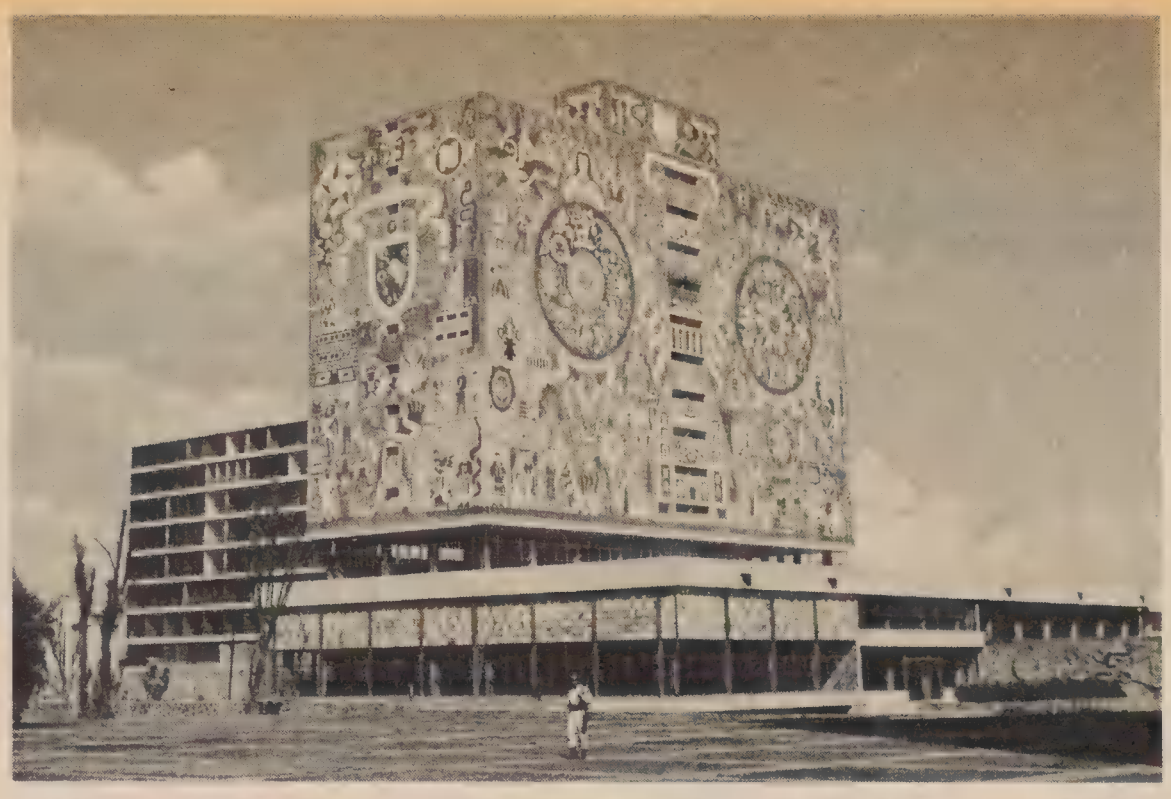
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Short of breath?



See your doctor, says your Christmas Seal association. Don't take chances with Respiratory Disease.



One of Mexico City's most impressive buildings is the Library, which is beautifully decorated with a huge mosaic.

South of the Border...

How would you like to spend two weeks next spring in sunny lands "south of the border" and see the true old Mexico, which is still strongly influenced by its Spanish and Indian cultures? Dates for our **Colonial Mexico Holiday are March 4 to 19,** and we cordially invite you to come with us. We will bypass some of the crowded tourist spots to visit the birthplaces of Mexican independence and enjoy the welcome of a spirited, friendly people.

Northeast Living

We will fly to **Mexico City** where we begin our vacation in this fascinatingly different land. There's much to see and do here, for Mexico City is one of the world's loveliest and most exciting cities. Our sightseeing will include the famed Pink Zone shopping district, the magnificent Sports Palace, Cathedral Square, Plaza of the Three Cultures, Chapultepec Park and the Anthropology Museum.

We'll drive the length of the Paseo de la Reforma, perhaps the most beautiful boulevard in the world, and attend a performance of the Folklore Ballet in the Palace of Fine Arts. Here, we will also see the fabulous Tiffany Glass Curtain. On another day we'll visit the marvelous ruins of Teotihuacan and stop at the Shrine of Guadalupe.

Leaving Mexico City, we visit **Tepotzatlan** to see its cathedral and monastery, also **San Juan del Rio,** a center of onyx craftmanship, and **Queretaro** where we still sense the strong influence of Spain. We spend the night at an old Spanish inn in quaint **San Miguel de Allende,** headquarters for many world famous artists.

Guanajuato is situated in a beautiful mountain valley. You'll enjoy strolling along the narrow streets, overhung with balconies and lantern lit at night. **Guadalajara,** perhaps the most Mexican of all Mexican cities, is responsible for mariachis, tequilla, also the fine leather and blown glass for which the country is noted.

Puerto Vallarta, made famous by the filming of "Night of the Iguana," is still a relatively unspoiled fishing village and an enjoyable place to sun and swim if you wish. Visiting **Patzcuaro,** the serenly beautiful Indian village of centuries ago, is like walking into a living page of the past. A boat trip will take us to the ancient island of **Janitzio** where fishermen use butterfly nets, as they have for hundreds of years.

In the lovely city of **Morelia** with its Old World atmosphere, we'll see the ancient aqueduct and one of the prettiest city squares to be found anywhere. The spa of **Ixtapan** is Mexico's fountain of youth. This delightful city has something to interest everyone — a luxury golf course, mineral baths, carriage rides and many fascinating things to see.

No visit to Mexico would be complete if it skipped **Taxco,** where the colonial charm has been preserved by governmental decree. Its cobblestone streets are lined with quaint red-tiled houses and flower-covered shops. It's fun to hunt for treasures in silverware and watch the natives fashion beautiful handmade jewelry.

Cuernavaca, the last highlight of our tour, is called "City of Eternal Spring." This semi-tropical resort area has been popular since before the Spanish conquest. The Palace of Cortez, now an historical museum, dates back to 1530.

Our tour agents, the Travel Service Bureau of Needham, Massachusetts, have planned an exciting trip which includes many of the places you've always wanted to visit. Like all AMERICAN AGRICULTURIST tours, the Colonial Mexico Holiday is a first class, escorted, all-expense, no-worry vacation. Our tour manager looks after all details, and you will travel with a friendly, congenial group of people. Write today for the tour itinerary which gives complete information about costs.

Other Trips

Don't forget our other early spring vacations! First, there's the fabulous once-in-a-lifetime **South Pacific Holiday (February 2 to March 8),** visiting Samoa, Fiji, Australia, Tasmania, both islands of New Zealand and Tahiti.

Next comes our **Caribbean Cruise** from **February 20 to March 5.** Ports of call will be San Juan, St. Thomas, St. Maarten, Curacao and Montego Bay.

Then from **February 23 to March 9,** we hope many of you will join our **Florida Circle Tour** and see all the attractions of the Sunshine State. Mail the coupon today.

Gordon Conklin, Editor
Box 370-T
Ithaca, New York 14850

Please send me without obligation on my part, the following tour itineraries:

Colonial Mexico Holiday ____ South Pacific Holiday ____
Caribbean Cruise ____ Florida Circle Tour ____

Name _____
Address _____
_____ Zip _____
(Please print)

Gifts . . . . .

(Continued from page 25)

only make an appearance at this time of year. These **Moravian Christmas Cookies** are an annual at our house. They are crisp and spicy and very inexpensive to make unless you count your time. They are lovely cut in shapes and decorated, and wrapped in clear plastic, they can be tied to the Christmas tree with colorful ribbons.

MORAVIAN CHRISTMAS COOKIES

4 cups sifted flour
1 cup plus 2 tablespoons brown sugar, firmly packed
2 teaspoons cinnamon
1 teaspoon salt
¼ teaspoon baking soda
1 cup margarine
1 cup molasses
½ teaspoon vinegar

Measure flour, sugar, cinnamon, salt and baking soda in sifter. Sift three times. Cut in margarine until mixture is the texture of meal. Add molasses and vinegar. Stir until thoroughly blended; cover bowl.

Chill dough until very firm. Roll chilled dough to about ⅛-inch thickness on floured board. Cut as desired and place on greased cooky sheets. Bake in moderate oven (350° F.) for 8 to 10 minutes. Makes 100 cookies about 2½ inches in diameter.

NEW LITTLE MOTHER

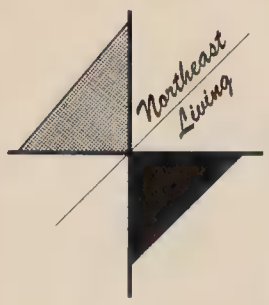
by Geraldine Ross

Eve leans close, with Paradise
Warm and sunny in her eyes.
Sarah's yearning, Rachel's tears
Shimmer down the lonely years.
Across the frankincense and myrrh,
Across the Christchild's slightest stir,
Mary leans a tender while,
Smiling her most gentle smile
At this new love, so bright, so pure,
This motherhood in miniature,
This wide-eyed child, uplifted, blessed,
Clutching her first doll to her breast!

GARDEN TALK

by George and Katy Abraham

Merry Christmas! We wish each reader of the AMERICAN AGRICULTURIST the happiest of holidays. Let's hope that '74 will be the best year ever!



How are your house plants doing? With the heat going full blast in our homes, many plants may have started to take on leaf burn, especially around the edges and on the tips. Keep the plants cool at night (60 to 65 degrees) for longer mileage. Also, never let the soil go completely dry. By placing the plants on a tray of pebbles which is kept moist, you can do a lot to maintain humidity for your plants.

Window Greenhouse

Many AA readers would like a small space where they can grow plants and start seeds, without using a greenhouse. This is possible by installing a "window greenhouse," and you don't have to mutilate your window frame or sash to install it.

You can buy a window greenhouse from firms specializing in greenhouse supplies. They are quite inexpensive and are not unsightly. If you'd like the name of a firm which makes the window greenhouses, send us a self-addressed, stamped envelope. If you're handy, you can even make a window greenhouse yourself; shelves can be either wood or glass.

Keep Kids Busy

During the winter months, your kids are apt to get a bit restless. If you'd like a good idea for maintaining interest and excitement, why not have them start a collection of items that can be grown right from the grocery shopping bag?

Here are a few items for them to tackle — **Carrots** make a fine "fern" plant. Cut off the tops and place in a dish of pebbles and water. **Sweet potato** is an excellent vine for trailing or climbing up the window frame. Place a root in water and watch it grow.

An **onion bulb** or garlic clove can be started in a glass of water. Pieces can be eaten during the winter months. (Ask the kids why onions make them cry when they're peeled.) An **avocado pit** (the seed) can also be started in a glass of water. Thrust a toothpick in sides to keep it out of water. Or pot the seed in a mixture of soil in a clay pot.

Seeds of **grapefruit, oranges, lemons** and other citrus fruit can be started in a pot of loose soil. Plants may not bear edible fruit, but you'll like the foliage effect. Start a **pineapple** indoors. Cut off the top and root it in a shallow pan of water. After it has rooted, pot it in a mixture of sand, peat and loam.

There are dozens of other things you can do to educate your Junior Green Thumbs. Here's one the kids always like — Dampen a large coarse sponge and hang it from a cord in a sunny window. Sprinkle the moist sponge with clover, redtop, grass, flax or mustard seeds. Keep the sponge damp at all times. Before long, seeds will sprout and cover the sponge with a solid coat of greenery.

And don't forget to make a terrarium. A goldfish bowl, brandy snifter, candy jar or any glass receptacle is ideal for making a terrarium for growing plants in your home or classroom.

Sprinkle some woods soil in the bottom, plus a few bits of charcoal. Try to create natural scenes, copied directly from the woods. The experience your children receive will be tremendous. Does any AA reader have other ideas to add to the above? Please send them along.

Controlling Cockroaches

Don't be ashamed if you see a cockroach or two in your home. They are often brought in by various and sundry means. This good homemade formula for exterminating cockroaches was sent to us by a reader who says, "It's non-poisonous to humans and destroys cockroaches, waterbugs and similar insects which enter homes."

Thoroughly mix 9 ounces of borax, 2½ ounces of cornstarch, 2 ounces of plaster of Paris and 1½ ounces of cocoa. Sprinkle freely around their haunts. Continue for several days after the bugs have disappeared.

AA Garden Clinic

A reader writes, "We saved some seed from our vegetable plants. Please tell us how to care for it."

Answer — First, never save seed from hybrid plants. After the seed is cleaned and dried, store it in glass jars tightly sealed and at low temperatures and low humidity. The best temperature is between 40 and 50 degrees, but the most important thing is to **keep it dry!** Even at low temperatures, seed will not remain viable if the humidity is high.

Flower and vegetable seeds are rather inexpensive when compared to other costs. Several weeks before sowing, test your seed for germination. If it's low, discard the seed and buy new seed from a reputable firm.

CHEVY CHEYENNE

It never forgets it's a tough truck

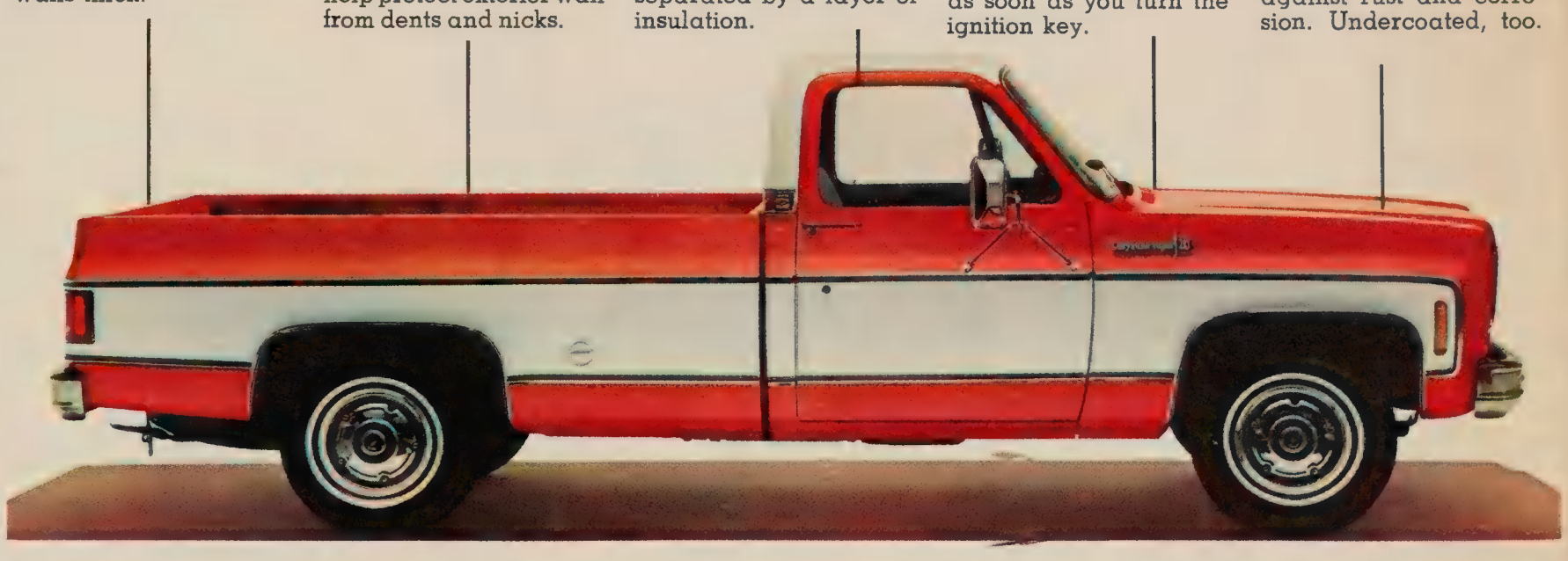
Double-walled Fleetside tailgate. Welded into a single solid unit that's two steel walls thick.

Double-wall Fleetside cargo box. Cargo box is double-walled, top to bottom, to help protect exterior wall from dents and nicks.

Double-wall insulated cab roof. The two steel walls that form the cab roof are separated by a layer of insulation.

Power flow-through ventilation. Electric fan starts changing cab air as soon as you turn the ignition key.

Full front wheelhousings. All-steel one-piece inner front fenders help protect against rust and corrosion. Undercoated, too.



Tough all over . . . and under

Tough frame side and crossmember design. Deep side rails joined by husky crossmembers for a solid, rigid foundation.

Load Control rear leaf springs. Two-stage multi-leaf design. As load weight increases, so does spring support. Result: a smooth ride without a load, strong support loaded.

Sixes and V8s to 454 cu. in. All designed to operate efficiently on no-lead, low-lead or regular fuels.

Massive Girder Beam front suspension. Front wheels are suspended independently. Tough coil springs at each wheel.

Finned rear drum brakes. Cast iron-steel alloy and finned for efficient cooling. Drum design helps keep contaminants away from lining.

Staggered placement of rear shocks. Positioned with one slanting forward, one aft to reduce brake and power hop.

Frame-mounted fuel tank. Located outside the cab to eliminate fuel odor and slosh noise from cab interior.

Improved brake system. Chevrolet announces an improvement in pickup brake systems. Complete brake systems are computer-matched to pickup size and capacity. Heavier duty trucks get heavier duty brakes automatically. Also new are front disc brake lining wear sensors which sound an audible signal when pads need replacement.

Building a better way Chevrolet to serve the U.S.A.



Food For The Spirit

by Robert L. Clingan

In the gospel of Luke, the shepherds of the fields around Bethlehem learned of the birth of Jesus through the song of angels. The angels sang of peace on earth . . . "Glory to God in the highest, and on earth peace among men with whom He is pleased."

That was two thousand years ago. Jesus was called "the Prince of Peace," yet our world has known little respite from war. We feel like the poet Tennyson, who wrote that on Christmas day he heard the bells ring "peace on earth," but there was no peace in the world in which he lived.

Way To Peace

Yet it is in part because of this story of Jesus' birth, and this song of the angels recorded in the Bible, that we look to Him for the way to peace in our world. When men have taken Jesus and His teachings seriously, they have begun to move in the directions that make for peace in the world. He not only gave them a vision of peace, but inspired in them a repudiation of war.

Think of these statements attributed to Him by the writers of our Bible: "He that takes the sword will perish by the sword" . . . Blessed are the peacemakers, for they shall be called the sons of God" . . . "Seek first the kingdom of God, and all things will be added to you."

He has been and continues to be the inspiration of the peacemakers and peace-searchers in all the days that followed His birth. One man He inspired above many others was Francis of Assisi, who became a saint of the Roman Catholic church and the founder of the Franciscan Fathers. Francis of Assisi left as our common heritage and contribution to the peace of the world, his great prayer for peace:

"Lord, make me a channel of Thy peace
That where there is hatred,
I may bring love;
That where there is wrong,
I may bring the spirit of forgiveness;
That where there is discord,
I may bring harmony;
That where there is error,
I may bring truth;
That where there is doubt,
I may bring faith;
That where there is despair,
I may bring hope;
That where there are shadows,
I may bring Thy light;
That where there is sadness,
I may bring joy;
Lord, grant that I may seek rather
To comfort than to be comforted;
To understand than to be understood;
To love than to be loved;
For it is by giving, that one receives;
It is by self-forgetting that one finds;
It is by forgiving that one is forgiven;
It is by dying that one awakens to Eternal Life."

When people pray this prayer sincerely and with a deep sense of commitment, peace on this earth becomes a little more possible. They become less and less a part of the problem of war, and more and more a part of the answer and hope for peace.



"Miss Apple Queen USA" (center) is Donna Colvin of Gastonia, North Carolina . . . flanked by second-place winner (left) Arlene Baer, Livingston, New Jersey and Deborah Colpitts, Farmington, Maine, third-place winner.



Better credit builds better buildings

Get the credit you deserve

When you need financing to put up a new building or put on an addition, you want the best credit available. With the farmer's own credit service, Farm Credit Service, financing can be arranged for virtually everything you need . . . for your farm, your family and your future. The next time you need credit to build a barn or a patio, to finance a vacation or an education, for any farm or personal need, call on your own Farm Credit Service and get the credit you deserve . . .

Your OWN Farm Credit Service

FARM CREDIT SERVICE

Offering Land Bank and Production Credit Loans